J 2160-1 ★

A publication of the
Indiana Business Research Center,
Indiana University School of Business

Indiana Business Review

Volume 64, Number 4 December 1989

The National Outlook

Bruce L. Jaffee	**The Outlook for the National Economy in 1990 / 2**
R. Jeffery Green	**Consumer Spending / 4**
Lawrence S. Davidson	**Nonresidential Investment / 5**
George Wilson	**Government Monetary and Fiscal Policy, Unemployment, Inflation, and Interest Rates / 6**
Michele Fratianni	**The International Economy / 7**
Donald L. Tuttle	**Interest Rates and Financial Markets / 8**
George H. Lentz	**Housing / 9**

The State Outlook

Morton J. Marcus	**The 1990 Indiana Outlook / 11**
Robert Kirk	**Indianapolis / 14**
Leslie P. Singer	**Northwest Indiana / 15**
Thomas L. Guthrie	**Fort Wayne / 17**
Richard L. Pfister	**Bloomington / 18**
Patrick M. Rooney	**Columbus / 19**
Ashton I. Veramallay	**Richmond-Connersville-New Castle / 21**
Dilip Pendse	**Kokomo / 22**
Marvin Fischbaum	**Terre Haute / 26**
Maurice Tsai	**Evansville / 27**
Fay Ross Greckel	**Jeffersonville-New Albany (Louisville Area) / 29**
Michael Watts	**Lafayette / 31**
John E. Peck	**South Bend/Mishawaka-Elkhart/Goshen / 32**
Gilbert L. Crouse	**Madison and Delaware Counties / 34**

1

The Outlook for the National Economy in 1990

Bruce L. Jaffee

Professor and Chairperson, Business Economics and Public Policy, Indiana University School of Business

As we predicted last year, the national economy in 1989 experienced positive real growth in GNP but at substantially slower rates than between 1987 and 1988. Specifically, we expect 1989 to have a real growth in GNP on a year-over-year basis of approximately 2.8%. The relatively strong sectors are business investment, especially for equipment, and exports. However, even these sectors in 1989 grew more slowly than in the previous year.

Our general outlook for 1990 is for continuing positive real growth in GNP, but at an even slower rate than for 1989. Specifically, we expect real GNP to grow at a 2% average annual rate. We do not see 1990 as being a year of recession. However, we do expect the fourth quarter of 1989 and the first quarter of 1990 to be especially weak, with real growth at annual rates of less than 1%. The leading growth sectors of the economy in 1990 are expected to be business investment for capital equipment, exports, and state and local government spending. But in the first two cases we expect growth rates to be significantly less than in 1989. The modest increase in the growth rate for state and local government spending is due to increases in spending on infrastructure, partly due to Hurricane Hugo and the earthquake in San Francisco, and increases in spending for social programs and education.

Personal consumption spending (PCS), which has been a strongly growing sector of the economy since the end of the recession in 1982, is expected to grow at only a 2% annual rate. With PCS comprising approximately 65% of GNP, it is virtually inevitable that slow growth in consumption means modest growth in overall real GNP. The consumption sector is likely to be weak because of modest increases in both disposable personal income and employment, and a decline in interest earnings because of our predicted decrease in interest rates between 1989 and 1990.

Total car sales are expected to reach only 9.7 million units in 1990, down from the 10 million-plus levels of the last few years. Imports, however, are expected to be constant, whereas sales from foreign transplants are forecasted to rise significantly. The Big Three, therefore, will experience the full brunt of the decline.

We expect no major changes in the value of the dollar between 1989 and 1990. At best, there may be continued

Figure 1
Annual Growth in Real GNP

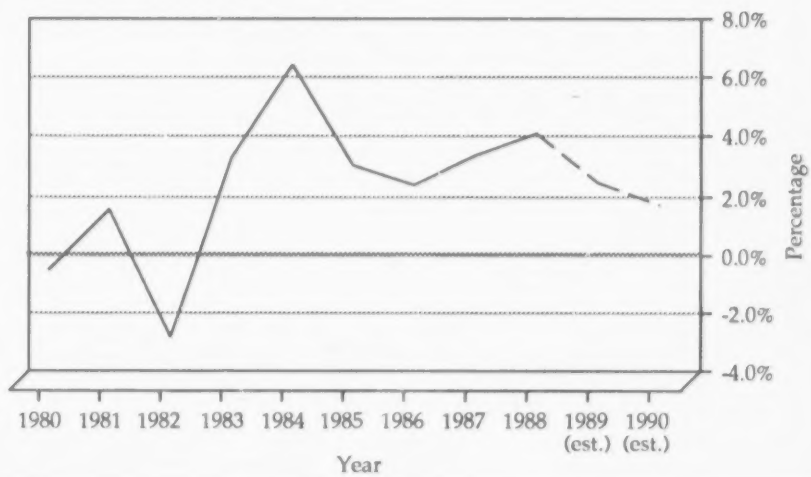
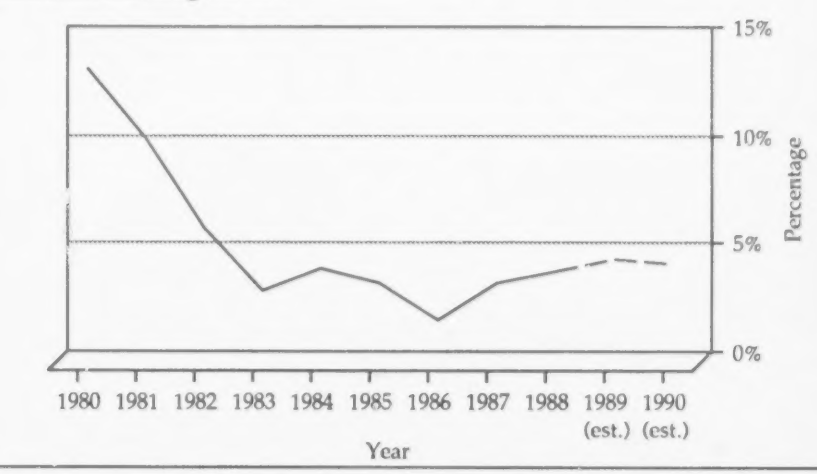


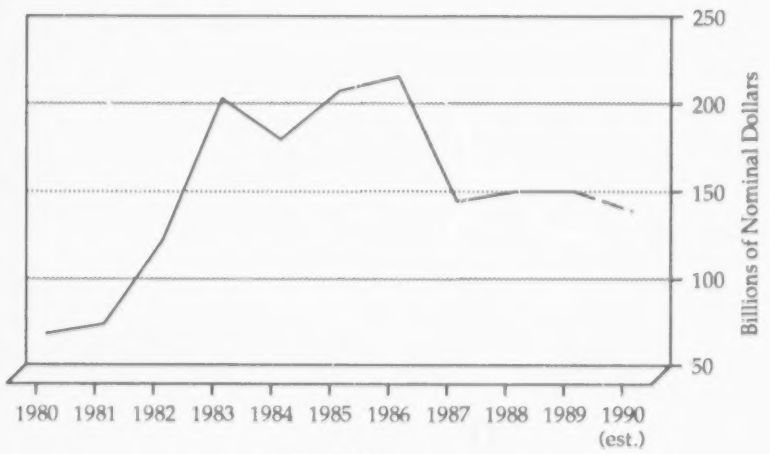
Figure 2
Annual Change in CPI



appreciation of the dollar next year from current levels. Consistent with this exchange rate movement, we expect no significant improvement in our trade balance.

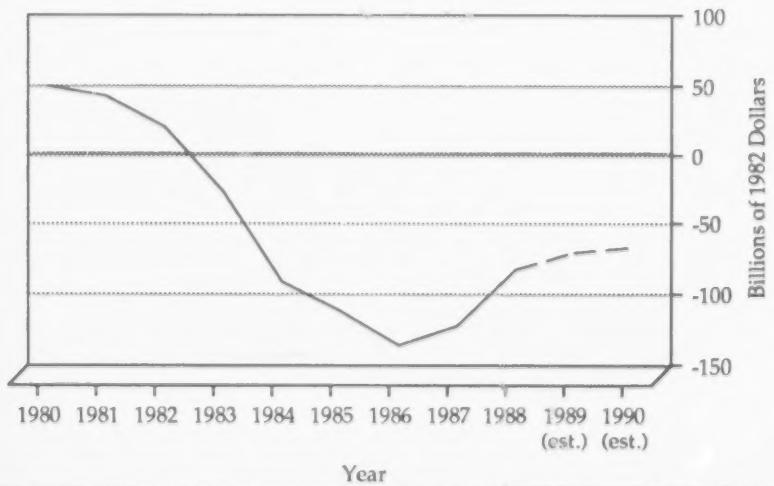
In the real estate area, we think it is important to distinguish among commercial office and retail space, plant expansion, and housing starts. The commercial market is likely to remain overbuilt in 1990, and we expect another down year for that market segment.

Figure 3
Federal Budget Deficit



(Includes both on-budget and off-budget items)

Figure 4
Real Net Exports



Plant expansion should continue at about 1989's rate, but it should be constrained by overcapacity in some industries, especially automobiles and related industries and those adversely affected by increased foreign competition caused by dollar appreciation. Housing starts should remain near their current levels, although the multifamily market is likely to remain weak. Housing prices are expected to increase but at less than the overall inflation rate. On the brighter side, housing may get a boost if mortgage rates break the psychological 10% barrier, as we predict (though by a narrow margin).

In the policy area, we think that any major change in tax policy at the federal level is unlikely, with the possible exception of a capital gains tax cut. Even if such a cut occurred, it would be unlikely to take effect until well into 1990 and would have little impact on the year's economic performance.

Fiscal policy, we believe, will have no active role in the macroeconomic arena, but the same cannot be said for monetary policy. Monetary authorities are focusing on three major variables: growth of the economy, inflation, and the value of the dollar. We expect that monetary policy in 1990 will be tight, with inflation and financing the current account deficit the Fed's primary concerns. However, if the economy deteriorates more than we are predicting, the Fed may loosen monetary policy significantly, expanding on a trend that began last summer.

We expect modest increases in the unemployment rate (to an annual average of 5.6%), but inflation should be at or below the rates for 1989. Interest rates should trend lower, with the yield curve resuming its more normal positive shape. The stock market in 1990 will be flat or up only slightly.

Figures 1 to **4** trace the path of four key economic variables through the decade. Our national forecast is sum-

marized in **Table 1**, and details about the components are described in the following reports.

Table 1
GNP and its Components

	1988 ($ bil. 1982)	*% Change from Previous Year[1] 1989 (est.)*	*1990 (pred.)*
GNP	4024	2.9	2.0
Personal Consumption Expenditures	2598	2.8	2.0
Gross Private Domestic Investment	716	1.6	1.9
Nonresidential Fixed	494	3.9	4.5
Residential Fixed	194	-2.7	-1.6
Change in Business Inventories	28	26.0	20.0
Net Exports	-75	-63.0	-60.0
Exports	530	10.5	5.8
Imports	605	7.3	4.8
Federal Government Spending	329	2.9	0.6
State and Local Spending	456	2.6	2.6

1. Except for Change in Business Inventories and Net Exports, both of which are in billions of 1982 dollars.

Table 2
Selected Variables
(Percentage Change Annual Rate, except where noted)

	4Q 1988	*1Q 1989*	*2Q 1989*	*3Q 1989*
Real Consumption Expenditures	3.0	2.0	1.9	5.8
Durables	9.9	-1.1	5.5	15.0
Nondurables	0.7	1.3	-2.3	4.0
Services	2.6	3.6	3.8	4.2
Real Disposable Personal Income	4.3	6.6	0.8	4.8
Saving Rate (percent)	4.6	5.6	5.4	5.1

Table 3
Forecast—Real Consumption Expenditures (billions of 1982 dollars)

	4Q 1989	*1Q 1990*	*2Q 1990*	*3Q 1990*	*4Q 1990*
Total Real Consumption	2694	2710	2725	2740	2755
Percent Change (AR)	0.4	2.4	2.2	2.2	2.2

Consumer Spending

R. Jeffery Green

Professor of Business Administration and Economics; Co-Director, Center for Econometric Model Research, Indiana University

Consumer spending has been a major contributor to the seven-year expansion we have enjoyed since the end of 1982. From the last quarter of 1982 through the last quarter of 1988, the average growth rate of real consumer spending has been a robust 3.9%. However, as can be seen from **Table 2**, consumer spending slowed from the last quarter of 1988 through the second quarter of 1989 before rebounding in the third quarter. Is the third quarter performance a sign of faster growth in the future or an aberration? In our view, the rapid growth in the third quarter was primarily due to special factors that are unlikely to be repeated.

Constant dollar spending on durable goods increased in the third quarter of 1989 at a spectacular 15% annual rate. Virtually all of this increase was accounted for by the increase in consumer spending on automobiles and auto parts. Almost all of the increase in real consumer spending on nondurable goods, from the end of 1988 through the third quarter of 1989, has been concentrated in spending for clothing and shoes. This category of spending contains significant quantities of imports, and stable import prices—a result of the strengthening of the dollar through much of 1989—contributed to the increase in spending. The growth in consumer spending for services has been concentrated in medical care and other services, whereas real spending for household operation was actually lower in the third quarter of 1989 than it was a year earlier.

A consumer's disposable personal income is basically either spent—and hence part of consumption expenditures—or saved. Thus, personal consumption expenditures depend upon the size of disposable personal income

and on the saving rate, which is the ratio of saving to disposable personal income. Table 2 shows the recent growth in disposable personal income and the recent levels of the saving rate. To understand the likely path of consumption spending in 1990, we need to estimate future growth in disposable personal income and the level of the saving rate.

Table 2 shows that despite a weak performance in the second quarter of 1989, real disposable personal income grew by 4.1% from the third quarter of 1988 through the third quarter of 1989. Why was income growth so strong? First, employment grew by about three million jobs over that period, raising wages and salaries. Second, interest rates rose through early 1989 and remained at fairly high levels, which caused interest income to rise by more than 16% over the same period. Looking ahead to 1990, employment gains are slowing and interest rates are gradually declining, so disposable personal income will likely grow more slowly during 1990 than during the first three quarters of 1989. In addition, the twin disasters of Hurricane Hugo and the California earthquake will depress income in the fourth quarter, particularly income from rents. Our estimate is that real disposable personal income will increase by less than 2% from the fourth quarter of 1989 to the fourth quarter of 1990.

Table 2 indicates that the saving rate has been declining since a peak in the first quarter of 1989. With interest rates declining into 1990, at least moderately, some further decline in the saving rate is likely. This means that real consumption expenditures will grow somewhat more rapidly than real disposable personal income.

Table 3 shows real consumption is projected to be weak in the fourth quarter of 1989, primarily because of weak auto sales after the incentive programs of the third quarter. Spending rebounds in the first quarter of 1990 and averages 1.9% from the third quarter of 1989 (the last quarter for which data are available) to the end of 1990.

Nonresidential Investment

Lawrence S. Davidson

Associate Professor of Business Economics and Public Policy and Director, Indiana Center for Global Research, Indiana University School of Business

Nonresidential investment (NRI) is the sum of business fixed investment (BFI) and changes in business inventories. This component of GNP was a major contributor to strong growth in the years after the end of the 1982 recession. Since then, BFI growth has slowed considerably. Nevertheless, as of the third quarter of 1989, NRI commands the same share of GNP as it did in 1985—about 12.5%. This implies that the slowdown in growth of NRI is reflective of the general slowdown of the entire U.S. economy.

It now appears that NRI will grow by a little less than the 6% we predicted last spring. Consistent with the general sluggishness we are forecasting for GNP in 1990, we expect NRI to grow by no more than 4% in 1990. This projection relies on three separate forecasts:

1. Producers' durable equipment will continue strong real growth, at a rate of about 5-7%.

2. Spending on structures will be level with, if not lower than, the average for 1989.

3. Inventory will continue to accumulate by about $15-25 billion annually.

Several recent events shape this view of moderate but slower growth in NRI. First, managers' expectations are heavily influenced by a general acknowledgement that the overall economy will slow significantly next year; thus their mood is cautious. This is reflected in a recent Department of Commerce survey, which found that firms were planning to increase their capital expenditures by only 3% for the latter half of 1989.

Second, corporate profits, and hence liquidity, have suffered lately, and the prospects for big reversals are not great. In fact, the auto industry, battered again by import competition, has recently announced a cut in its production plans by some 15% in the final quarter of 1989. If it continues to fight importers for market share through discounts, rebates, and other promotion devices, then prospects of a major turnaround in profits, liquidity, and investment look slim.

Third, the latest reductions in the manufacturing capacity utilization show less pressure to build and expand than at this time last year. Backlogs of factory orders have also been falling recently, underscoring the reduced pressures of firms to expand in the near future. In fact, orders of capital goods outside the defense sector fell in both August and September. The primary metals industry (including steel) was hit very hard.

Fourth, high vacancy rates in office buildings will limit office construction next year, while reluctance on the part of oil companies to expand production at today's market prices will continue to retard gas and oil exploration.

Finally, monetary and fiscal policies do not bode well for NRI. The federal government has not convinced managers that they are capable of legislating better business conditions. In fact, many firms face more uncertainty because of the government's inability to

complete the budget on time, stick with a single tax code for more than one year, decide what to do about the capital gains tax, and determine who is going to shoulder the costs of financing the savings & loan bailout and promised expenditure increases for child care, the war on drugs, environmental cleanup, and health benefits.

Firms are no doubt appreciative of the longer-run benefits that price stability will bring. Nevertheless, they must deal with an uncertain short-term business environment until Alan Greenspan attains more credibility. In the meantime, tight money implies high interest rates, an inflated value of the dollar, and the possibility of a recession in 1990. None of this suggests that managers will be confidently expanding NRI by very much in the near future.

The good news is that we are not forecasting a recession, and we do not believe there will be a major breakdown in NRI. The U.S. economy seems to have been caught in a sort of economic purgatory over the last four years. When the economy grows rapidly, interest and inflation rates rise and quickly cool off spending. When the economy starts to slow, interest and inflation rates fall and revive spending. Since the second quarter of 1985, for example, GNP has varied from a low annualized quarterly growth rate of -1.8% to a high of 6.6%. The average growth rate of GNP over those 17 quarters was 3.5%.

This apparent automatic stabilization may be connected to sanguine longer-term prospects for continued economic expansion. Though current forecasts are for a slowdown, we don't think firms will pull back their investment plans very much because of this expected future stability. On the bullish side is the idea that if U.S. inflation remains under control, the Fed will not have to tighten significantly, interest rates will not rise further, and the dollar may begin a modest decline. Should this view be correct, our forecast of NRI to grow in 1990 by about 4% would not be overly optimistic.

Government Monetary and Fiscal Policy, Unemployment, Inflation, and Interest Rates

George Wilson

Distinguished Professor of Business Economics and Public Policy and Professor of Economics, Indiana University

Fiscal policy does not exist in the sense that tax and expenditure changes will be oriented toward stabilizing the economy next year. Rather, it will be single-mindedly linked to making the nominal deficit appear to conform to a battered and discredited Gramm-Rudman-Hollings goal by various financial stratagems having no real significance whatsoever. GRH has not been called a "sham" and a "failure" for nothing. Certainly the 1990 fiscal year target of $100 billion will not be met, given the 1989 deficit of $155.2 billion and the president's opposition to any tax increases. What the deficit will really be is hard to determine, because much depends upon fiscal machinations designed to reduce it. These could take many forms, all of which are largely irrelevant to real economic activity. Because the actual size of the officially declared deficit at the end of fiscal 1990 makes no difference, there is little point in presenting an estimate. However, should anyone be interested, I would guess that it would be between $130 and $140 billion, based on increased receipts of 7% (about the expected growth of nominal GNP) and outlays rising between 4-5% during 1990. Since the deficit is "supposed to be," at most, $110 billion, the GRH target will be raised again. "Fiscal follies" indeed!

More important, government GNP purchases (in 1982 dollars) should increase slightly in calendar year 1990. National defense outlays (NIPA basis) should decline by some 2%, while non-defense expenditures should rise by about 10%, so federal government purchases of goods and services would total about $340 billion in 1990. State and local expenditures are expected to continue their fairly steady rise of about 3% over 1989 and total some $485 billion. The government sector as a whole will therefore account for about 19.5% of GNP in 1990, almost precisely the same as in 1988 and 1989—indeed, the average ratio for the entire decade. So much for fiscal revolution!

As the only real stabilization game in town, the Fed will watch closely to see that the actual growth of the economy does not stray far from the path we have outlined. This implies a relatively easy monetary policy through the first quarter of 1990, with only modest restraint thereafter. After all, with growth for the year as a whole expected to average barely 2%, the Fed will not want to be seen as pushing the economy into a recession. Nor will it have to pursue an exceptionally tight monetary policy. With real growth well below conservatively estimated growth capacity of 2.5-3% per year (I would put it even higher), the likelihood of demand-pull inflation is pretty remote, especially with a fair amount of excess capacity still with us. It should not be hard for the Fed to pursue a policy that keeps inflation moderate and real output growth positive.

If real GNP reaches $4,228 billion in 1990, and if real output per employed

person grows by an expected though meager 1%, this implies a level of employment averaging 119 million during 1990. With the civilian labor force in 1990 of 126 million, this implies an average unemployment rate of about 5.5%, slightly higher than 1989's 5.3%. This is still within the range that most observers view as full employment, or the "natural" rate of unemployment.

As noted above, inflationary pressures appear to be weak for the foreseeable future. Nor is there evidence of a strong upward thrust in recent months. In fact, the GNP deflator dropped to a low 2.9% during the third quarter of 1989 from 4.6% in the second quarter. Other inflation indicators, though higher in 1989 than 1988, are not rising at alarming rates. It should therefore be possible to maintain inflation rates at levels slightly below—or with some luck, substantially below—those prevailing in 1989.

With inflation held in check due either to deficiency of aggregate demand or Fed policies, inflation expectations should be sharply lower. This suggests that nominal and possibly real interest rates will fall below levels generally prevailing in late 1989. With very slow GNP growth anticipated in the next quarter or two, it is likely that the Fed will provide enough slack to allow interest rates to fall even further. Besides, this will help reduce the exchange value of the dollar, which should assist the current account imbalance as well as the overall economy.

In conclusion, we should perhaps not lament the lack of fiscal policy. It seems the economy won't need it. Monetary policy will likely suffice if we are satisfied with 2% real growth, 1% productivity increase, and 5.5% unemployment. Yet the single-minded attempts to lower the deficit do real harm to the economy. Much publicly provided infrastructure is in a state of considerable disrepair. The drug, pollution, education, health care, and AIDS problems require far more resources and attention than even President Bush imagines. The reconstruction following Hurricane Hugo and the earthquake in California, to say nothing of the savings & loan fiasco, also require more than token federal assistance. These should not be held hostage to a sham or a vision of balancing the budget solely through expenditure reduction. To be sure, the federal government cannot do it all, nor can the problems be successfully tackled by "merely" throwing money at them. But somewhere between offering condolences or exhortations on the one hand and providing funding on the other is a set of needed government outlays and initiatives that should not be squelched because of unrealistic budget policies and priorities.

The International Economy

Michele Fratianni

Professor of Business Economics and Public Policy, Indiana University School of Business

The United States is in its seventh year of economic expansion following the recession of 1980-82. The present business-cycle expansion exceeds the average length of recoveries in the postwar period by four and one-half years.

In last year's forecast of the international economy, we pointed out that the United States was going through an export boom, an important reason for the sustained recovery. Exports of goods and services measured in 1982 dollars have increased almost twice as fast as imports of goods and services since the end of 1986. As a consequence, net exports of goods and services have risen from -$130 billion in 1986 to a projected -$63 billion in 1989. This improvement has occurred despite a year during which the dollar, for the most part, has appreciated vis-à-vis other currencies. The reason lies with output growth rates being higher abroad than in the United States. In fact, output growth in Japan, Germany, France, the United Kingdom, Italy, and Canada—six of the seven countries defining the so-called G7 group—will average almost 4% in 1989 versus a projected 2.6% in the United States. Exports and imports of goods and services are sensitive to changes in real income, with U.S. imports being more sensitive to changes in U.S. real income than exports to changes in foreign real income. Consequently, a slowdown of U.S. economic growth, accompanied by a rise in foreign economic growth, has a more than proportional effect on the U.S. trade balance.

The U.S. current-account deficit improved slightly, from $127 billion in 1988 to $123 billion (SAAR) during the first half of 1989. The slow adjustment of the current-account imbalance reflects the reversal of net interest payments. As we have pointed out in previous issues, the U.S. has pursued economic policies—namely, budgetary policies—that have made this country spend in excess of what it produces. In contrast, Germany and Japan—the two largest current-account surplus countries—have pursued policies that have restrained spending relative to home production. The United States, in addition, has enjoyed higher real rates of interest than the rest of the world. This has resulted in large net capital inflows, and consequently, in large current-account deficits. These imbalances have made the U.S. into a net debtor, and Germany and Japan into net creditors. The implication is that the U.S. incurs

higher income payments on foreign-owned assets in the U.S. than income receipts on U.S. assets abroad, whereas the opposite is true for Germany and Japan. These net interest flows make the correction of current-account imbalances much slower than the correction of trade imbalances.

The appreciation of the U.S. dollar in 1989 was the result of monetary policy in the U.S. being tight in relation to monetary policy abroad. At the same time, the U.S. monetary authorities have intervened in the foreign exchange markets to stabilize the value of the dollar. The Federal Reserve and the Treasury reported foreign currency holdings valued at $34 billion at the end of July 1989; in June 1988 the foreign currency holdings were $11 billion. It follows that our monetary authorities have made net purchases of $23 billion from June 1988 to July 1989. These purchases were fully sterilized in the sense that the Fed has sold $1 worth of domestic bonds for every $1 of foreign bonds purchased. In other words, the official interventions in the foreign exchange have had no consequence on U.S. monetary aggregates. Why has the Fed pursued these interventions? The traditional explanation is that interventions stabilize exchange rates. With full sterilization, however, stabilization must be interpreted as reducing variability in the short run and not altering the fundamental course of the exchange rate. Hence we are left with the following alternative interpretations of the interventions: The Fed was either betting against its own disinflation strategy, or was willing to incur expected losses in its portfolio of foreign-currency assets to reduce the short-term variability of the exchange rate.

Projections for 1990

The basic policy assumption is that the Fed will continue its present policy stance. In "global" terms, this means that expected inflation rates in the United States will be falling relative to expected inflation rates abroad, especially in Germany and Japan. Consequently, real rates of return on dollar-denominated assets will be higher than on foreign-currency assets, and the dollar will tend to appreciate in the exchange markets. Current and prospective trade and current-account deficits, on the other hand, point to an additional depreciation of the U.S. dollar. The appreciating force is likely to dominate the depreciating force, with negative consequences on real net exports. The higher growth rate of real income abroad will offset the negative consequences of the exchange rate. On balance, we see a slight improvement in real net exports and a slight deterioration in the current-account deficit in 1990.

Forecasts are fraught with risks, especially those concerning international variables. One such risk involves the elections that will be held in both Germany and Japan before the end of 1990. If current governing coalitions were to be defeated, the U.S. dollar would strengthen further, in turn influencing capital and current accounts. Another risk is associated with the unknown size of industrial restructuring taking place in Europe. Such restructuring implies a great deal of investment as well as mergers. To the extent that Japan and the United States are very keen in participating in this process, long-term capital would flow to Europe to "lock in" the gains before Europe may turn trade restrictive. A third risk comes from the large size of the external debt of LDC countries. If existing stabilization programs in Latin and South America were to fail, the U.S. trade and current-account deficits would be additionally affected. Despite these shocks, it is fair to say that the United States has very little choice but to continue to welcome foreign capital and become used to seeing its companies taken over by foreign owners.

Our forecast is summarized in the **Table** above.

Table
1990 International Forecast

	1989	*1990*
Exports in $billion 1982, NIA	586	620
Imports in $billion 1982, NIA	649	680
Net exports in $billion 1982, NIA	-63	-60
Current account, current dollars (billions)	-115	-120
Dollar/yen, appreciation		5%
Dollar/German mark, depreciation		5%
Effective exchange rate, appreciation		3%

Interest Rates and Financial Markets

Donald L. Tuttle

Professor of Finance, Indiana University School of Business

Given the weakening nature of the U.S. economy and the instability of the nation's stock and bond markets, interest

rates are likely to trend downward somewhat in 1990. The primary cause of the decline, especially at the short end of the maturity spectrum, will be the Federal Reserve's efforts at monetary ease. The primary purpose of the Fed's increasing the money supply will be to shore up the relatively slow growth of the U.S. economy, especially in interest-sensitive areas such as autos, housing, other consumer durable goods, and business capital spending. Inflation worries and the foreign trade deficit will likely have lower priorities in Fed policy.

The effect of the Fed's efforts are likely to be felt differently in different parts of the debt maturity structure, however, because of the continued large supply of long-term bonds expected to come to market in 1990. The result should be a drop in long-term rates of only about 75 basis points (three-quarters of a percentage point), whereas short-term rates are likely to drop 125 or more basis points. This will change the shape of the yield curve from an essentially flat shape at about 8% for Treasury securities in late 1989 to a somewhat upward sloping curve.

Perhaps the most important development in the U.S. debt market in 1989 was the weakening of the high yield or "junk" bond market, in which negative total returns (price declines in excess of coupon income) occurred in recent months. Should the economy weaken further, high coupon bonds of companies with large debt loads are likely to be further downgraded in credit quality, pushing their yields higher and prices (and total returns) lower. The "flight to quality" that is likely to be accentuated by such a development will result in larger yield spreads between high yield and investment grade bonds and may exacerbate the downward trend in interest rates on high grade debt, especially U.S. Treasuries. Legislative proposals in Congress to raise the price of corporate leveraged buyouts (LBOs) and curtail the deductibility of deep-discount, deferred-interest-payment high yield debt used in LBO "mezzanine" financing may have a significant negative impact on corporate deal-making and restructuring activity. This would diminish part of the reduction in supply of common stocks that the equity markets have experienced in recent years.

In terms of the U.S. stock market in 1990, the outlook is for a relatively flat market and a return not much in excess of the return on investment grade long-term debt. A combination of factors lead to this conclusion. They are led by a relatively weak corporate profit picture in which expenses are expected to outgrow revenues, primarily because unit labor costs net of productivity gains are expected to outpace price increases. In addition, investor perceptions of stock market risks have been heightened again with the high volatility in stock prices in October of this year following the extreme drop just two years prior. The volatility-limiting "circuit breakers" recently initiated in the stock and stock derivative markets may help alleviate these risk perceptions. Additional negative factors influencing U.S. stocks will be an increase in competition for funds from the likely increase in interest rates abroad due to foreign monetary restraint, the diminishing of the reduction of the supply of U.S. equities due to the cutback in LBO activity referred to earlier, and the likely moderate reduction in institutional demand for equities.

Selectivity in choosing stocks will likely be important, and investors will be wise to avoid companies with excessive debt loads or becoming involved in debt-related deal-making activities, because the risks in these situations will be heightened significantly.

On the other hand, there are some stock market positives that at least partially offset these negatives. One is the only slight overvaluation of stocks relative to their fundamentals in most equity valuation models as compared with a 20%-plus overvaluation prior to the 1987 market fall. Key to this favorable valuation factor are:

1. A price/earnings ratio for stocks that is close to their modern historical norm of approximately 13;
2. The fact that long-term interest rates are expected to decline moderately; and
3. The expectation of dividend growth in excess of 10% in 1990. As a result, the stock market as a whole should produce relatively favorable dividend yields and small price appreciation leading to total return in the 10-13% range, modest compared to either recent annual stock returns or to risks traditionally borne in the stock market.

Nevertheless, the typical investor with a long-term time horizon cannot afford to neglect a sizeable commitment to equity investment. Therefore, the average investor should continue to invest approximately 45-50% in stocks, another 40-45% in long-term bonds (on which total returns should approach 9-10%), and about 10% in money market securities.

Housing

George H. Lentz

Assistant Professor of Finance and Real Estate, Indiana University School of Business

The movement in mortgage interest rates should parallel that of interest rates in general. Rates for both fixed-rate and adjustable-rate mortgages have been declining during the latter part of 1989, and are expected to con-

tinue to fall slightly during 1990 as a consequence of a weakening economy, with most of the decline coming early in the year. The average mortgage rate for the year should be 9.5-9.75%. But just how much mortgage rates, and interest rates in general, fall will depend on how much the economy slows down and on how much the Fed relaxes its restraints on monetary growth in an effort to stimulate the economy. The gap between fixed-rate and adjustable-rate mortgages has narrowed considerably over the past year. The spread should stay under 2% because of investor expectations of lower long-term interest rates, and because lenders have grown wary of the effects on loan quality of offering adjustables at initial rates significantly lower than prevailing mortgage rates.

At the time of this forecast, aggregate housing starts for 1989 are running at a seasonally adjusted annual rate of about 1.4 million units, the lowest level in about seven years. The trend during 1989 has been slightly downward. Starts of single-family housing, which has been the strongest component of housing construction, declined mainly because of a decline in housing affordability (discussed below). Two countervailing forces are expected to exert an influence on new construction in 1990. First, the slowing economy should dampen the demand for housing and thus reduce the number of housing starts. On the other hand, the decrease in mortgage rates should stimulate housing construction. The net result should be that housing starts in 1990 should be close to where they are at the present time—that is, around 1.4 million units for the year. The slight decline in mortgage rates should just about offset the effects of a slowing economy. In the past few years, housing in the Midwest has been slightly stronger than in the country as a whole (in terms of year-to-year changes), reflecting renewed strength in the manufacturing sector. But the relatively strong performance of the regional housing market probably will not continue in 1990. The forecasted slowdown in the automotive and durable goods sectors of the economy, which are disproportionately located in the Midwest, should adversely affect housing starts in the region in 1990.

Nationally, the median price of existing homes has increased in each of the first six months of 1989. The median price increased 4.1% from January through June 1989. The median price of new homes nationally has exhibited a seesaw pattern, rising then falling then rising. In Indiana, the median price of existing homes statewide increased 8.2% from January through June 1989. However, the median price of an existing home was virtually unchanged in Indiana from the end of June 1988 to the end of June 1989 because the price of existing homes fell during the second half of 1988. For 1990, housing prices should increase slightly, about one-half of the inflation rate, or about 2%. At the time of this forecast, it is still too early to predict what effects Hurricane Hugo and the October earthquake in San Francisco will have on the price of building materials, and therefore on the cost of construction in 1990.

"Housing starts in 1990 should be close to where they are at the present time—that is, around 1.4 million units for the year."

For the first two quarters of 1989, housing affordability has been dropping, both nationally and for the state of Indiana, as mortgage rates and housing prices have risen. Nationally, the National Association of Realtors' housing affordability index fell to 98 at the end of July. The national housing affordability index had not been below 100 since 1985. Of the four regions of the country, only the Midwest (at 129) was above 100. (At 100, the median household earns enough income to qualify for the median-priced house under standard underwriting requirements with 80% financing.) In Indiana, the housing affordability index fell from 172 in January 1989 to 149 in June 1989. However, housing affordability in the Midwest, and especially in Indiana, remain very high relative to the rest of the country, due to a much lower median home price. At the end of June 1989, the median price of an existing home nationally was $93,400; in Indiana the median price was $57,900.

The construction of multifamily housing has declined substantially since 1985, reflecting the adverse impact of tax reform legislation on incentives to invest in multifamily housing. At the end of the third quarter of 1989, the percentage of total housing starts represented by multifamily housing units was slightly over one-fourth of all housing units, the lowest percentage of the decade. This indicates that the trend of declining investment in multifamily housing that has characterized most of this decade has continued into 1989. However, the decline in multifamily construction is now beginning to create a shortage of rental property in some areas of the country. In 1990, the demand for apartments should put upward pressure on rental rates. Nationally, rental rates should increase at about the same rate as inflation, which should stimulate new construction. With the exception of the possible lowering of the tax rate on capital gains, no tax legislation favorable to multifamily housing appears likely in 1990. Passage of favorable capital gains legislation in 1990 should stimulate investment in multifamily housing.

The 1990 Indiana Outlook

Morton J. Marcus

Director, Indiana Business Research Center, Indiana University School of Business

A slower rate of growth for the national economy suggests an even slower pace in 1990 for Indiana. With national housing starts expected to be even with 1989, auto sales slightly down, and no major gains in export activity, Indiana manufacturing employment will be level or down for the year.

Although selected layoffs may be expected in the first few months of the year, more Hoosiers may be employed in manufacturing by the end of 1990 than at this time. For the year, the decline in manufacturing employment is likely to be less than 1% of all jobs in this key sector. At worst, this decline would erase the gain of 4,000 jobs made in 1989.

Nonmanufacturing employment is expected to continue its upward movement, albeit at a slower rate. In 1989 the gain approached 70,000 jobs; next year that could be cut to just over 50,000.

The unemployment rate of the state, which has hung around 4% for several months, will rise during 1990. A rapid movement toward 5.5% in the late winter can be expected, but then improved circumstances should keep the rate from rising much further as the year progresses.

Real personal income gains will be caught between sustained inflation of about 4% and nominal growth of less than 5%. Hence, the growth of real spending in Indiana should slow to less than 1% in 1990. This will not be much different from the situation faced this year in the state. Nominal retail sales have been up by 5.7% thus far in 1989, but inflation gains have absorbed about two-thirds of those advances.

Farm proprietors' income has proven much stronger in recent quarters than previously reported. Extensive data revisions show that Hoosier farmers had just one quarter of losses in recent years. After the drought-related troubles at the end of 1988, the first half of 1989 was up 29% from early 1988. Continuing strength in agriculture can be expected in 1990, since the economic issues facing the nation are unlikely to have any significant adverse impact on domestic demand; forecasting the international aspects of the market requires an ability to predict both worldwide weather patterns and the agricultural politics of more than 100 nations.

Throughout this forecast there is a timing pattern worth noting. The adverse period will be early in 1990, with improvements as the year progresses. By the end of 1990 most indicators should be equal to or better than their closing points in 1989.

Figure 1
Indiana's Share of Total Personal Income

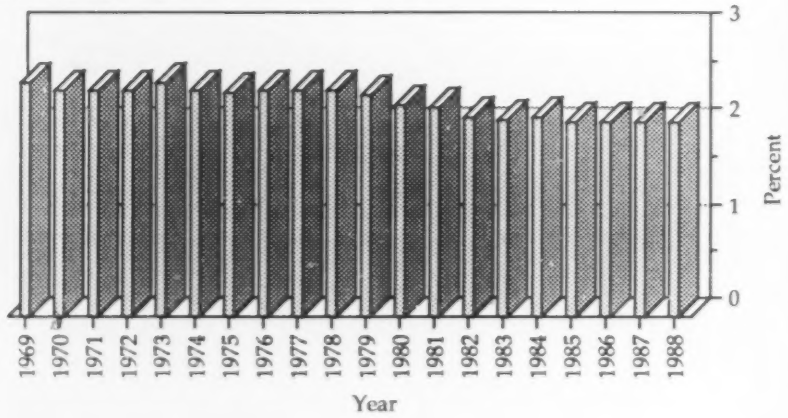
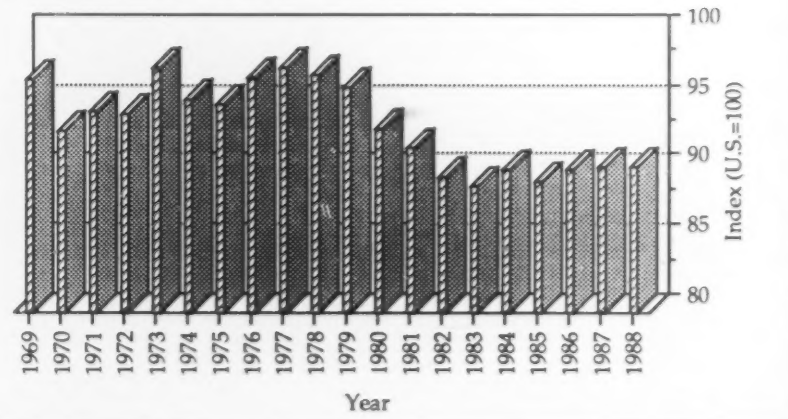


Figure 2
Indiana's Per Capita Personal Income



Changes in the Indiana Economy

The current slowdown in the national economy is affecting Indiana, but without the force of prior slowdowns and downturns. Several changes in the structure of the Indiana economy in the past decade are contributing to this reduced cyclical impact.

Although Indiana's share of U.S. personal income has continued to decline in recent years, the state seems to have stabilized at its new level (see **Figure 1**). Since 1985, Indiana has been at approximately 2.05% of the nation's personal income after falling from 2.47% in 1969. The most precipitous drop occurred during the 1979-83 recession. For the past four years, however, Indiana has kept pace with the nation's economic progress.

During this same recent period, however, per capita personal income has been rising slightly (see **Figure 2**). The state was at 96.6% of the nation's per capita level in 1969; it had fallen to 89.1% in 1983 but has shown an upward trend since then, reaching 90.5% in 1988.

This slight rise in per capita personal income has occurred because our share of the nation's population (as estimated by the U.S. Bureau of Economic Analysis) has been declining. A stable share of the nation's personal income combined with a falling share of population yields a rise in relative per capita personal income. Hence we have achieved a seemingly desirable outcome by failing to keep pace with the nation's population growth. This may be an instance where lagging behind the nation is not undesirable.

In the past decade (1978-1988), Indiana's share of all jobs in the U.S. fell from 2.45% to 2.22%. This pattern of a declining share of the nation's employment was seen in most industry groups (see **Figure 3**). We did experience relative growth in four sectors:

Figure 3
Indiana's Share of U.S. Employment
(full- and part-time)

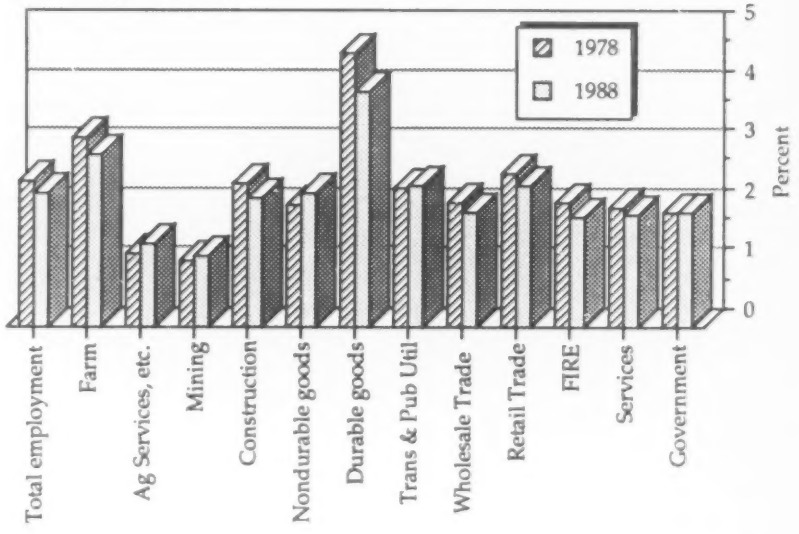
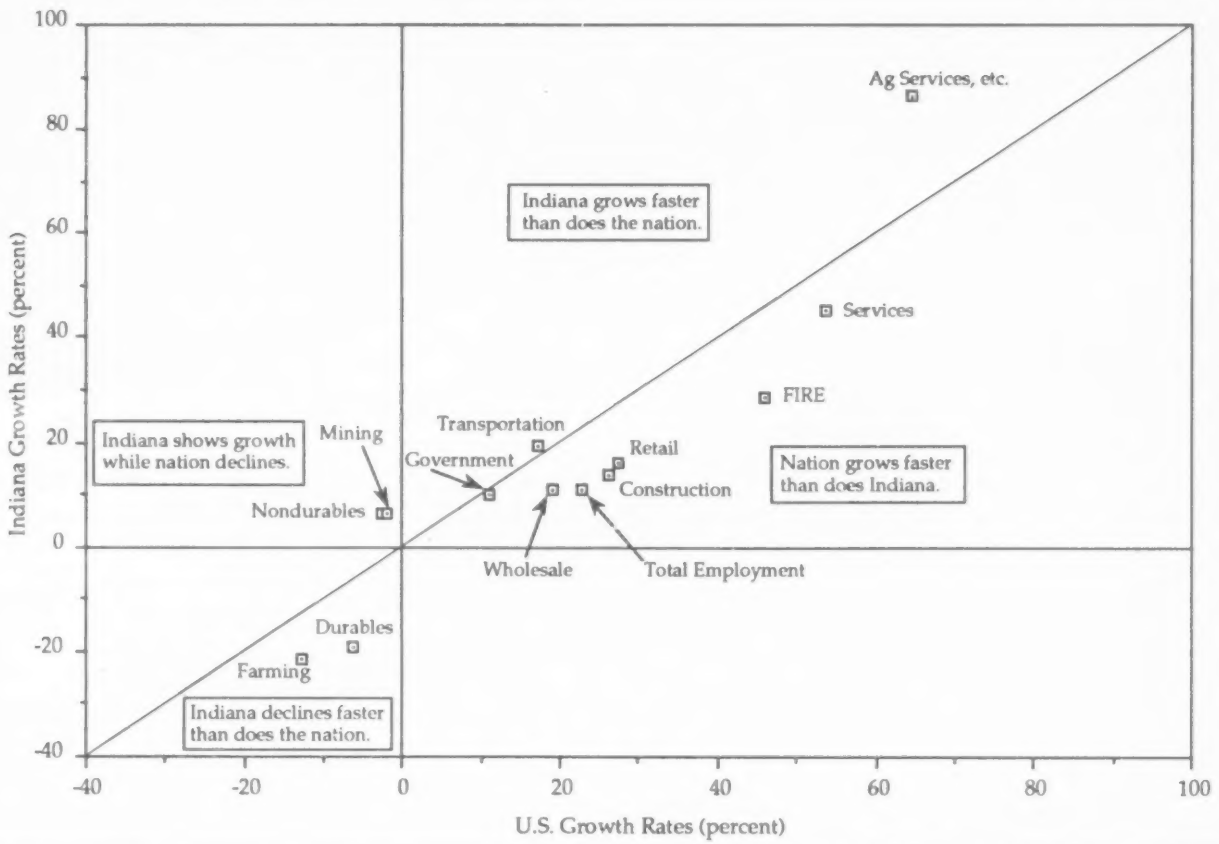


Table 1
Distribution of Employment by Industry
(percent)

	1978			1988		
	U.S.	Indiana	Difference	U.S.	Indiana	Difference
Total Employment	100	100		100	100	
Farm	3.48	4.53	1.06	2.47	3.21	0.74
Ag Serv, For., Fish.	0.75	0.38	-0.37	1.0	0.63	-0.37
Mining	0.92	0.41	-0.52	0.73	0.39	-0.35
Construction	5.19	5.06	-0.13	5.35	5.18	-0.16
Manufacturing	19.39	28.24	8.85	15.05	22.07	7.03
Nondurable goods	7.76	6.46	-1.3	6.16	6.2	0.03
Durable goods	11.63	21.78	10.15	8.88	15.88	6.99
Trans. & Pub. Util.	5.0	4.74	-0.27	4.78	5.1	0.32
Wholesale Trade	5.03	4.23	-0.81	4.88	4.22	-0.66
Retail Trade	15.97	16.71	0.75	16.57	17.52	0.95
Fin. Ins. & Real Estate	6.33	5.32	-1.01	7.53	6.17	-1.36
Services	20.97	17.1	-3.87	26.27	22.36	-3.91
Government	16.97	13.28	-3.69	15.36	13.14	-2.22
Index of dissimilarity		11.95			9.04	

Figure 4
Indiana vs. U.S. Employment Growth Rates, 1978 to 1988



Agricultural Services, Fisheries, Forestry, and Other Industries; Mining; Nondurable Goods Manufacturing; and Transportation and Public Utilities. During this period the structure of employment in the state and the nation was in transition. In 1978, it would have been necessary to shift nearly 12% of the employment in Indiana to obtain the same distribution as the U.S. enjoyed. For example, 22.8% of Indiana's workers were involved in the production of durable goods, whereas only 11.6% nationally were in that industry. This 10.2% "excess" would have to have been shifted to other "deficient" sectors if we were to have had the same distribution as the nation (see **Table 1**).

By 1988, it would have been necessary to shift only 9% of Indiana's employment to realize the national pattern. Hence, in this decade Indiana's employment pattern converged toward that of the nation. Our "excess" in durable goods fell to just 7% by 1988.

The nation's fastest growing sector was also the fastest growth sector in this state. **Figure 4** compares industries' Indiana growth rates to national growth rates. Indiana outpaced the nation in employment growth of Agricultural Services, Fisheries, Forestry, and Other Industries. But this is a small sector, accounting for less than 1% of all employment nationwide, and it is a statistical catch-all. Our lead in this area is of little practical consequence.

Indiana trailed in all the faster-paced industries. For example, we lagged the nation in Finance, Insurance, and Real Estate by 17 percentage points. In two declining sectors (Mining and Nondurable Goods Manufacturing), Indiana went against the national trend, adding employment while

these sectors scored losses nationally.

Durable Goods Manufacturing (our traditional strength) and Farming (our mythical leading sector) both fell faster in Indiana than in the nation. By 1988, both Services (which includes health services) and Retail Trade exceeded Durable Goods in total number of jobs and share of the employment market.

As a result of these changes in our state's employment structure, it is unlikely that a national slowdown will have the same relative impact in 1990 as did the slowdowns and downturns of the past.

Indianapolis

Robert Kirk

Professor of Economics, Indiana University-Purdue University at Indianapolis, with data assistance from the Statistical Services Division of the Indiana Department of Employment and Training Services

Managers of Indianapolis businesses may have to sharpen their management skills in 1990, because the business climate may not be as supportive as it has been. The rates of employment and personal income growth will be slower than those of recent years. The primary reasons are slower growth at the national level, and the fact that Indianapolis is part of state and regional economies that continue to have a durable-goods orientation. **Table 1** compares Indianapolis with other economies in the proportion of total earnings (a measure of output) generated by the durable-goods sector.

Indianapolis is less durable-goods oriented than the rest of Indiana and metropolitan areas in the Great Lakes states, but more so than metropolitan U.S. Over time, for each economy the durable-goods orientation has declined.

The slowdown will be most noticeable in consumer durables, specifically autos—an industry in which Indianapolis has a concentration. The output multiplier for autos is relatively high, which means that the industry is highly linked to other industries both within Indianapolis and in the rest of the state. Therefore the impacts will be widely felt. Although excess capacity seems to exist at the industry level nationally over the next several years, auto plants in Indianapolis have made—and continue to make—large investments to upgrade their production facilities. This should reduce the chances of shutdowns.

The greater diversification of the Indianapolis economy will moderate the effects of the slowdown. For example, the convention industry brings in dollars from outside central Indiana. Patients from outside the area seeking specialized treatments available at area hospitals generate income for the local economy. Federal, state, and local governments provide stability as well.

Business Services

Business services, along with health services and retailing, have been generating the largest number of jobs during the 1980s. The business services sector includes a variety of industries, such as advertising, management consulting, public relations, leasing, building services, computer services, employment agencies, and temporary help agencies.

Firms have used temporary help because of the reduction in labor costs and increased management flexibility in response to shifts in market conditions. Employees like the increased freedom. However, there are costs, such as a greater sense of insecurity for employees, a potential for underinvestment in training, higher unemployment rates during recession, and a potential reduction in the chances that equal employment opportunity goals will be met in a two-tiered system. Union organizers find the temporary help market a more difficult environment.

While the temporary help (contingent economy) labor market has been growing, another labor market (share economy) has been developing also. In the share economy, the labor-management focus is on profit sharing, performance bargaining, job ladders, retraining, and redeployment. Although the service sector is viewed as being less cyclical than the durable-goods sector, certain industries within services, such as temporary help, are cyclical also.

Table 1
Proportion of Total Earnings Generated by Durable Goods Sector (by place of work) in Percent

	1979 (peak)	*1982 (trough)*	*1986 (recovery)*
Indianapolis	22	19	17
Rest of Indiana	36	31	29
Great Lakes (metropolitan)	29	24	22
U.S. (metropolitan)	18	15	14

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Relative Price Changes

Table 2 indicates price changes at the national level for selected items during the 1980s. If the index for an item is less than 124.6, that item's price has increased more slowly than the combined cost of all items. During the 1980s, the prices of commodities have increased less rapidly than services. Differences in rates of price change reflect a variety of factors, including differences in productivity growth, exposure to competition, response to income change (income elasticities), and means of financing. During the 1980s, households have purchased a lot of consumer electronics, furniture, and automobiles.

In terms of market demand, the number of households and the age distribution of the households are important determinants. The baby boomers have been in the home-buying years. In an urban setting this means that population has dispersed as new housing developments have been built. Reliance on the automobile to connect housing and employment locations has affected ridership for METRO bus routes, caused congestion at locations not originally designed to handle the increased traffic volumes, and heightened the issue of air quality. The increased demand for urban land has contributed to the increased cost of disposing of our garbage.

Rising health care costs have given rise to some critical financing issues for local hospitals. Rising college tuition has been increasingly financed via loans, resulting in large debts for some graduates that reduce their discretionary income following graduation.

Table 2 refers to national data. The American Chamber of Commerce Researchers Association survey shows Indianapolis to be below the national average in costs for such items as groceries, housing, and utilities. With its relatively low costs, central location, and attractive fiber optics network, Indianapolis is a desirable location for distribution and telecommunications, as evidenced by American Express, Charles Schwab, and Epson selecting Indianapolis for new facilities.

Major construction projects, such as Eli Lilly, the Circle Centre Mall, State government offices, and IUPUI, will continue in 1990. However, extended leases and rental incentives are being offered in the office market. Although the overall metropolitan housing market appears to be balanced, there are some submarkets with excess inventory. The apartment building vacancy rate is tending downward but at a slow rate.

In the longer term, population projections by age for 1990-1995 indicate a contraction for the 15-29 age group, with the largest growth occurring in the 45-54 age group. These demographic changes have implications for the demand for starter homes and furnishings. Also, the rate of labor force entry will be lower. Employers finding entry-level job seekers lacking adequate skills will be forced to offer formal remedial training. Ways will need to be developed to maximize the use of the existing labor force and provide flexibility in working arrangements to attract those not in the labor force to enter. On an optimistic note, the relative scarcity of labor will induce firms to substitute capital for labor, resulting in higher labor productivity and real earnings and less inflationary pressure. The downside is that various sectors of the economy are highly leveraged financially, resulting in a very brittle economy that could shatter if an economic shock occurred.

Table 2
Changes in Components in the Consumer Price Index (CPI), 1982-84 = 100, for August 1989.

Item	*Index*	*Relative Importance*
All Items	124.6	1.00
Commodities	116.7	0.45
Services	133.1	0.55
Appliances	88.4	
Gasoline	91.1	
Women's Apparel	109.5	
Furniture	113.6	
Men's Apparel	114.7	
New Cars	117.7	
Residential Rent	133.5	
Homeowner Costs	138.1	
Physicians' Services	151.4	
Garbage Collection	157.7	
Hospital Room	159.9	
College Tuition	161.4	

Source: CPI Detailed Report, *August 1989.*

Northwest Indiana

Leslie P. Singer

Professor of Economics, Indiana University Northwest

The Northwest Indiana economy is becoming increasingly more immune to the national business cycle. Real gross national product has declined in 1989 to an annual growth rate of about 2.4%, down from an average rate of 4.1%. One would have expected that Northwest Indiana would have lost some of its growth momentum too. That was not the case, just as we had predicted in our 1988 forecast. Even manufacturing and steel showed modest gains of more than 1.5% in 1988. Total employment averaged an annual growth rate of 5.8%; nonmanufacturing, led by retail trade, averaged an annual growth rate of almost 6%. These figures compare with a national employment growth rate of about 3.5%.

These results are surprising and cer-

Table 1
Percent Change in Selected Data for Northwest Indiana

	Actual							Forecast					
	Jan. 1985	*Jan. 1986*	*Jan. 1987*	*Jan. 1988*	*1Q 1989*	*2Q 1989*	*3Q 1989*	*4Q 1989*	*1Q 1990*	*2Q 1990*	*3Q 1990*	*4Q 1990*	*1Q 1991*
Total Employment	-3.24	-2.21	-3.09	6.81	6.61	5.19	2.10	4.86	4.42	4.02	5.47	4.86	4.65
Manuf.	-11.79	-2.48	-18.27	16.36	2.87	1.76	0.73	1.01	1.12	0.83	-0.74	-0.21	-0.01
Non Manuf.	4.73	4.11	0.52	6.19	7.85	6.32	5.18	5.20	6.05	5.93	5.71	5.21	5.44
Construction	-1.67	-8.77	-5.35	1.92	26.60	12.73	13.68	11.17	9.77	8.95	7.72	5.39	5.31
Government	-1.98	-1.95	-0.96	4.98	1.25	1.61	0.95	1.42	1.26	1.39	1.09	1.19	1.79
Trade	1.72	3.38	1.43	5.04	8.39	5.63	6.12	4.84	6.92	6.25	5.95	4.83	6.10
Services	8.07	2.89	-7.94	8.67	8.83	8.47	5.62	7.07	7.03	7.31	7.39	7.07	7.20
Manufacturing	-2.73	0.00	2.33	6.09	5.76	3.24	3.22	4.80	3.92	4.64	4.72	4.48	3.93

tainly encouraging. **Table 1** shows that up to January 1987, a date that is well past the national recovery from the 1982-83 recession, Northwest Indiana growth rates were in the negative column except for that wonderfully buoyant sector, nonmanufacturing, which posted repeated annual growth rates of more than 4%.

We are undergoing a restructuring of the local economy. Although the manufacturing payroll is still a major contributor to the local economy, there are other sources of primary money flows. First is the large and growing transfer economy—pensions, social security payments, and relief. Most retired manufacturing employees reside here and collect pensions. These individuals spend almost all of their nonwage incomes locally. Second is the expanding health care, personal care, financial services, legal services, insurance, and similar sectors, many of which are financed from external sources. Third is the rapidly expanding service and retail export sector. In other words, the unusually rapid retail and service expansion along Highway 30—which is Lake County's, and even Porter County's, new downtown—is drawing shoppers from an increasingly larger geographical hinterland, extending south, east, and west of the large commercial concentration located at the intersection of I-65 and U.S. 30. The more than 15% average annual growth rate in construction employment attests to the continued commercial viability of south Lake and Porter counties. It appears that the retail square footage per population has significantly increased.

The diminished sensitivity of the local economy to cyclical factors may not be quite as robust in 1990 as it was in 1989. Declining auto sales will exact a 3.5-4% drop in steel shipments. The tail end of the 1989 investment cycle may further exacerbate the slowdown in manufacturing. Thus we project steady but slow growth in manufacturing employment, with only a minor up tick in the second quarter. World events, such as the opening of new markets in Eastern Europe, may eventually change the forecast. For that we shall wait until our midyear revision.

The declining share of manufacturing employment in total employment is a national phenomenon. The proportion in seven Midwestern states is higher than nationally, about 29%. In Northwest Indiana the proportion of manufacturing employment in total employment will fall to about 22.8% by the end of 1990. This reduction in the share of manufacturing may be exaggerated because of the growth of outsourced auxiliary activities that are included in the service sector, thus understating employment. The Federal Reserve Bank of Chicago estimates that manufacturing employment as well as the manufacturing payroll in the Midwest is understated by 6-7%.

Although the Northwest Indiana economy as a whole has remained prosperous, urban and black economies have lagged far behind. It appears that non-white economies do not benefit from the secondary money flows to the same degree as white economies. That is, they do not participate equally in domestic entrepreneurship, which is driven by the so-called export sectors. Our studies indicate that, although there may be residual historical racism, racism is not the principal obstacle to participation. There is a persistent lack of broad-based entrepreneurship, in spite of the fact that several successful black entrepreneurs have emerged in health care, construction, and some service areas. Participation by blacks in the flourishing retail sector and in small manufacturing is still too low. Government programs have been unsuccessful in stimulating entrepre-

Table 2
Seasonally Adjusted Data for Northwest Indiana
(Employment in 000s; payroll in $ billion)

	Actual							Forecast					
	Jan. 1985	*Jan. 1986*	*Jan. 1987*	*Jan. 1988*	*1Q 1989*	*2Q 1989*	*3Q 1989*	*4Q 1989*	*1Q 1990*	*2Q 1990*	*3Q 1990*	*4Q 1990*	*1Q 1991*
Total Employment	208.90	213.50	206.90	221.00	237.20	241.30	238.10	236.60	241.60	246.40	246.50	245.60	244.00
Manufacturing	60.60	59.10	48.30	56.20	57.30	57.80	57.30	56.70	57.50	58.10	56.60	56.70	57.10
Steel	39.20	37.70	28.60	35.30	35.30	35.50	34.90	34.80	35.50	35.70	34.40	34.70	35.10
Non Manuf.	148.30	154.40	155.20	164.80	179.90	183.50	180.80	179.90	184.10	188.30	189.90	188.90	186.90
Construction	9.10	11.40	10.40	10.60	13.80	15.60	18.20	14.30	11.60	13.40	15.70	13.50	11.54
Government	29.70	30.70	30.10	31.60	32.30	31.60	26.50	31.00	33.10	32.50	31.60	32.10	31.70
Trade	45.30	48.90	49.60	52.10	56.80	58.10	59.00	59.90	59.20	60.60	60.30	60.50	59.03
Manuf. Payroll	1.87	1.90	1.86	1.87	1.87	1.82	1.87	1.80	1.85	1.86	1.82	1.83	1.85
Steel	1.24	1.22	0.94	1.22	1.22	1.20	1.21	1.18	1.19	1.24	1.20	1.18	1.19
Non-Steel	21.40	21.40	19.70	20.90	22.00	22.30	22.40	21.90	22.00	22.40	22.20	22.00	22.00
Services	41.50	42.70	43.80	47.60	53.00	53.80	52.60	52.50	52.90	52.80	52.50	52.90	55.90

neurship. Increased participation by blacks in submanagerial positions, accounting, and supervisory positions in local retail enterprises will eventually generate more non-white entrepreneurs. This seems to be a surer method of raising the level of economic activities in the urban communities than the current big bet on casinos, although casinos may be of some help too. A publicly partially subsidized program of retail internship for non-whites, at zero cost to the hosts, may speed up the natural process generating entrepreneurship. The lower salaries paid to interns would compensate the hosts for the experiential training provided to interns.

Table 1 gives the actual and projected percentage changes in the data over a 12-month period. **Table 2** gives employment in thousands and the annual payrolls in billions of dollars. All data are seasonally adjusted by the Census XI method. Government includes education, and services includes health care.

What could change the foregoing predictions? Last year I listed the following caveats that could bring about a serious slowdown or possibly a recession: if the dollar rises, if steel labor agreements exceed 4%, if federal or local taxes are raised. I believe the steel contract is slightly above its optimal level and labor costs are exerting some downward pressure on earnings in a softening market for steel. I do not expect large layoffs, but possibly some shorter work weeks. Local companies have learned their lesson from the 1982-84 period, when drastic layoffs deprived them of highly skilled and diligent workers who found jobs out of state and will not return. Steel companies will hoard skilled personnel, whom they consider capital.

One concern is that a significant slowdown in consumer spending, if such should actually occur, will cause several smaller local stores and some overextended business service enterprises to fail. Some minor cash flow pressure will arise in 1990, but not enough to seriously impede the growth in the nonmanufacturing sector.

The anticipated decline in defense expenditures may stimulate steel by raising civilian expenditures.

Fort Wayne

Thomas L. Guthrie

Associate Professor of Economics and Director, Community Research Institute, Indiana University-Purdue University at Fort Wayne

Employment in the Fort Wayne area was forecast "to increase 2%-3%—4,000 to 6,000 jobs—in 1989" (*IBR*, December 1988). For the year ending in October, employment has increased 5,500. The data are preliminary.

Although the 1989 forecast is a smashing success in terms of accuracy, the economy is not. Based on seasonally adjusted data, all of the employment increase occurred in January and February. February employment was 198,400, versus October employment of 198,600. However, the *non*-seasonally adjusted October employment did reach the milestone level of 200,800 jobs. Approximately 25% of the jobs are in manufacturing.

In seven years the economy has increased by one-third, or 50,000 jobs,

since the economic genocide from 1979 through 1982. Manufacturing's share of employment decreased 1.2%; U.S. and Indiana employment increased 23% and 10.5%, respectively, during the comparable period. The **Table** below shows the major winning sectors in terms of percentage and job increases.

Some of the conditions that caused the area economy to stall in 1989 are still in place, so the outlook for 1990 is tepid. Employment is forecast to increase by 1-2% by the end of 1990. However, it may well decline slightly during the first half before turning upward in the second half. The principal culprit is the dismal outlook for the auto/truck industry through at least the first quarter of 1990.

Superficially, it may appear that the Fort Wayne area is not influenced that much by the fortunes of the auto/truck industry, since only 7,800 jobs are in the transportation equipment line of the employment statistics. But that is not the case. Much of the output from other manufacturing industries is auto related, and many auto component manufacturers have begun operations outside the official Fort Wayne area but within its economic sphere.

So far, the consumer has just said no to 1990 autos. Production rates already have been pared, but they need to be pared more through at least the first quarter to reconcile production with anticipated sales and current inventory. A potential long-term problem is that the Big Three automakers are being severely challenged by the transplant assembly operations—foreign manufacturers using U.S. assembly plants. Just recently, the Japanese have built ten such plants between Tennessee and Ontario, Canada. A study by the General Accounting Office indicates average domestic content of the transplants in 1988 to be 38%, compared to 88% for the Big Three. If component manufacturing in northeast Indiana is primarily for the Big Three, the capturing of increased market share by the transplants can be extremely bearish for the area economy.

The breakout of peace between East and West is bad news for defense-related manufacturing in the area, such as Magnavox and ITT. The strengthening of the foreign exchange rate of the dollar throughout 1989 bodes poorly for increased exports in 1990. Probably 10-20% of employment in the area is export related.

Both residential and commercial construction have been trending downward throughout 1989. However, the hope is that falling interest rates will at least stabilize if not revive the industry in 1990. In fact, falling interest rates and a stable-to-falling exchange rate for the dollar appear critical to a favorable 1990 economy for the Fort Wayne area. No longer is it marching independently to the different drummer named economic development.

Table
Fort Wayne Area Statistics

Sector	*Employment Change Oct. 1982 - Oct. 1989*	*% Employment Change Oct. 1982 - Oct. 1989*
Services	14,700	52.7
Trade	13,000	35.2
Durable Goods Mfg.	9,400	30.5
Construction	5,100	91.0
Transportation Ser.	4,000	41.7
TOTAL	46,200	

Bloomington

Richard L. Pfister

Professor Emeritus of Business Economics and Public Policy, Indiana University

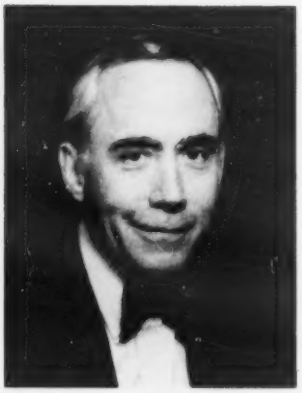
The Bloomington metropolitan economy has outperformed the state economy since 1970. As shown in **Table 1**, Monroe County's share of Indiana's personal income has risen steadily over that period, as has its share of the state's total wage and salary employment.

Bloomington's strong growth has continued since 1987, the last year for which we have data. **Table 2** shows annual changes from August to August for selected categories of employment from 1985 to 1989. As shown here, Bloomington's growth has been especially strong the last two years. Total wage and salary employment grew by 9.4% in 1989 and 6.8% in 1988. Comparable growth rates for the state were 2.3% and 3.7%. Manufacturing employment has grown at an average annual rate of 10% over the last three years. The strong local economy was reflected in the construction sector, where employment growth rates far exceeded those of the state, except for 1988. Growth of employment in the trade sector equalled or exceeded the state rates in each year of the period.

Bloomington's strong employment growth has resulted in a low unemployment rate. In September 1989 the local unemployment rate was 2.5%, the lowest for any metropolitan area in the state. The corresponding state rate was 4.7%. Bloomington has been among the areas with the lowest unemployment rates for several months.

Bloomington has enjoyed vigorous growth over the last few years, but what does the future hold? It seems unlikely that growth can be maintained in

Indiana University



"Great teachers expose students to the excitement of discovery."

We Are One University With Eight Front Doors

Indiana University's 3,500 full-time faculty members teach more than 89,000 students at campuses in Bloomington, Indianapolis, South Bend, Gary, Kokomo, New Albany, Richmond, and Fort Wayne. The University also offers programs in Columbus, Elkhart, and many other sites.

"A teacher affects eternity; he can never tell where his influence stops." —*The Education of Henry Adams*

Dear Friends:

Indiana University, like all great universities, is committed to teaching, research, and service. But it is teaching, first and foremost, that defines the University's reason for existence.

At Indiana University we have teachers who move continually between the classroom and the laboratory or library, and who gain insights for their research in the foundry of inquiring students. Teaching and research must go together. Time and again, it turns out that those chosen for awards for excellence in teaching are also prizewinners for research in their chosen fields. The reason is apparent. Those teachers are able to infuse the frontier spirit into their teaching precisely because their own work is at the frontier.

Great teachers expose students to the excitement of discovery. They also help students see how the concepts they study can be applied to the world around them. Students are inspired by faculty members who are excited about their subject and who want their students to share that excitement.

We believe that great teachers show students how to think and learn for themselves. They teach students to analyze and criticize, to think creatively, to carry out research, and to explore new ideas.

Teaching is also a process of exploring connections. A great teacher helps students integrate knowledge and make connections among different disciplines.

At Indiana University we ask a great deal of our teachers. Our surveys of faculty members indicate that, as teachers and researchers, they feel they have not one, but two full-time jobs. When I go back to my office at night, I can see lights on in buildings across the campus—in offices, in laboratories, and in libraries, where faculty members are preparing lectures, grading exams, doing research, and writing papers. And these same faculty members also find time to serve the University, the State, and beyond as they work to transfer the knowledge gained at the University to the benefit of the public.

These teachers are an invaluable resource for our State; they are essential to our economic well-being and our quality of life. They prepare the physicians and attorneys, the teachers and artists, the business people and elected officials, the journalists and nurses, the librarians and scientists, and the many others who contribute to our way of life.

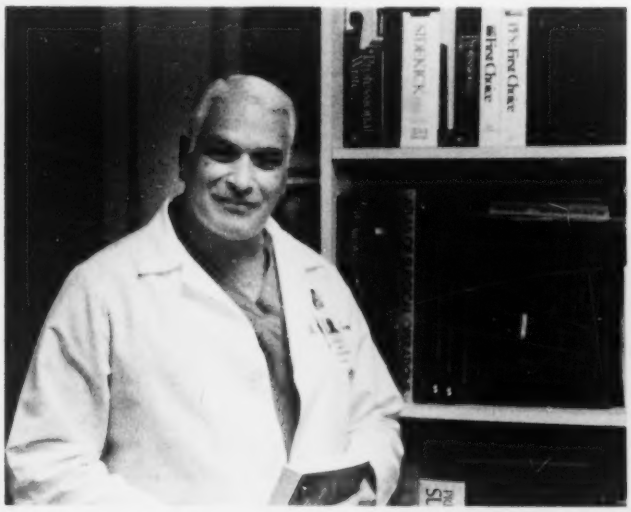
These great teachers who influence, who inspire, who teach our students are women and men who have dedicated their lives to the pursuit of knowledge and to sharing that pursuit with others. I present here briefly six of our faculty members who represent the dedication and commitment that prepare our students for a future enriched by lifelong learning. All have been honored by their students and colleagues with University Teaching Awards.

Cordially,

Tom Ehrlich

Thomas Ehrlich
President of Indiana University

"transmitting the excitement of learning"



Jay L. Grosfeld, M.D., Lafayette F. Page Professor of Surgery, Chair of the Department of Surgery, Director of the Section of Pediatric Surgery, IUPUI (Indianapolis)

"Life is a dynamic educational process; you never stop learning," says physician, surgeon, and teacher Jay Grosfeld.

Dr. Grosfeld has been called "a creative, inspiring, innovative, and challenging teacher" who demands the highest competence from his students. His students have responded by honoring him with seven teaching awards.

Colleagues praise Dr. Grosfeld for "transmitting the excitement of learning" and for inspiring many young physicians who have gone on to other positions around Indiana, the United States, and abroad.

A leader in the field of pediatric surgery, Grosfeld is widely known for his work in childhood cancer, treatment of short-bowel syndrome, and neonatal surgery. He is also known for helping his students learn to handle the difficult ethical problems that arise in the practice of medicine.

"In surgery we teach in a highly stressful environment," Dr. Grosfeld says. "We are concerned about life and death on a daily basis. For a surgeon, the most important teaching comes at the bedside and in the operating room."

Dr. Grosfeld says his goal "is to help young doctors develop those skills that will make them physicians and something more—physicians who have that special sensitivity to patients and that desire that makes them want to excel and to do their best every day."

"an ability to bridge the gap between the arts and sciences"

Gary E. Dolph, Professor of Botany, IU Kokomo

Whether he is teaching a biology class at Kokomo, leading a group of students on a search for fossils, or showing other faculty how he incorporates computers in his classroom, Professor Gary Dolph displays a dedication and enthusiasm for his work that inspire those around him.

A paleobotanist, Dolph has been described as an articulate, productive scholar who takes his research into the classroom so his students can be challenged by it. He has also been an innovator in developing the use of computers in science education.

One undergraduate wrote of his class, "Dr. Dolph's talent and dedication make it possible for us to see the relevance of scientific thought in different aspects of our lives. We, as students, leave his classroom better prepared to move into the future."

Another student called Dolph a "gifted professor of biology who can stand in front of a room full of English majors and have them not only understand what he is saying, but have them appreciate the value of what he is teaching." Professor Dolph is often praised for this ability to bridge the gap between the arts and sciences.

Dolph believes that student performance is an outcome of teacher behavior and that a feeling of mutual respect is essential to any student-teacher relationship. "My goal is to encourage students to become active learners, to seek for themselves, and to develop their own ideas," says Dolph.

"the model of what a teacher and scholar can be"

Susan D. Gubar, Professor of English, IU Bloomington

Internationally known author and feminist critic Susan Gubar says she's very lucky to be an English teacher. "I find in all my classes the kind of intellectual inquiry that is particularly stimulating to me as a thinker, a teacher, and a writer," she says.

The author of eight books and scores of articles, she puts as much energy into her freshman English courses as into the research and writing that have led *Ms.* magazine to name her a "Woman of the Year" and *USA Today* to list her among "People Who Made a Difference."

Dr. Gubar's goal as a professor of English is to help students experience the "extraordinary pleasure of writing and reading. I want to awaken students to the possibilities of intellectual activity so they can analyze, they can interpret, they can come to understand their own lives and cultures more richly."

A former student wrote of Professor Gubar, "She comes to her classes not only willing to learn from her students, but ready to demand that she learn from them....She researches for her classes as carefully as for her writing. What she does is to bring to her discussions a curiosity as vast as her knowledge and to approach her students in the spirit of a colleague."

One professor summed up Gubar's commitment by saying: "Susan Gubar has been for me the model of what a teacher and scholar can be."

"a great ability to inspire"

David N. Baker, Jr., Distinguished Professor of Music, IU Bloomington

In the jazz world, David Baker is considered one of the country's most important performers, teachers, and composers. As a Distinguished Professor of Music at Indiana University, he is recognized for building a nationally renowned jazz studies program.

A colleague says of Baker, "He has a great ability to inspire the most advanced music major as well as to communicate with non-majors who want to study jazz history or performance." Baker is "totally dedicated to his students and to the teaching profession," says one of his students.

As a musician, Baker has been called an extraordinarily gifted performer, composer, and arranger. He has achieved international stature as a composer of both classical and jazz works. As a scholar, his textbooks and articles on jazz have set standards by which other writings are judged.

"For me," says Professor Baker, "teaching is the central element in everything that I do. The only way that I feel I have a legacy is through my students. Being around students who constantly challenge our beliefs makes us continually reassess what we are doing. I feel that I grow every day that I am in contact with students."

In the words of one colleague, David Baker "has touched thousands of people with the quality, spirit, dedication, and sincerity of life itself."

"teaching is the most important thing I do"

Susan B. Sutton, Associate Professor and Chair of Anthropology, IUPUI (Indianapolis)

Anthropologist Susan Sutton believes "teaching is the most important thing I do." Her commitment to teaching is evident whether she is lecturing to a group of IU students at the base of the Acropolis in Greece, leading a class discussion on ethnic identity on the Indianapolis campus, or researching the migration patterns of Greek citizens.

A prolific researcher and writer in the field of cultural anthropology, Dr. Sutton feels she has the most far-reaching impact in the classroom.

"My favorite course is introductory anthropology," she says, "because that's when the light bulbs start flashing. The students become really excited because it's the first time they have thought through many of the basic concepts we discuss."

"You learn so much from teaching because you are formulating and reformulating concepts and because the students bring new perspectives that push you to the limits of your understanding of the subject," she says.

Sutton's students share her enthusiasm for her classroom. One student wrote, "Not only has Dr. Sutton opened my eyes to the cultural framework in which I operate, she has taught me methods by which I might contribute to bringing about better cooperation and tolerance among peoples of diverse cultures."

Another student wrote, "I hope to find teachers who are knowledgeable in their fields, but are eager to share that knowledge and to provide the opportunity and encouragement for individual growth and development." Dr. Sutton, the student concluded, "has these qualities and more."

"a demanding and dynamic teacher"

William F. Browne, Professor of Psychology and Education, Chair of the Division of Behavioral and Social Sciences, IU East (Richmond)

William Browne is a professor, administrator, counselor, and friend to many students at IU East. His colleagues praise him for his ability to establish an immediate and positive dialogue with his students, and he is known for his willingness to spend many hours helping students individually outside the classroom.

As a professor of both psychology and education, Professor Browne has been honored with six teaching awards on the IU East campus. He reciprocates the high regard that his students express for him, calling IU East students "motivated and dedicated."

Browne's colleagues praise him for his ability to help students grow and develop "by generating a curiosity about the subject materials and about the world around them."

The recipient of numerous grants, Dr. Browne is involved in research on the applications of psychology and computers to the field of education. He has led both his students and his colleagues in adapting microcomputers to their learning and research needs. He was named "Distinguished Teacher Educator for 1989" by the Indiana Association of Coileges for Teacher Education.

Known as a demanding and dynamic teacher, Browne sees education as a two-way street. "I really enjoy the exchange of ideas in the classroom," he says. "I often challenge the students with unexpected ideas to get them going so they will begin to form their own ideas."

This publication prepared by the Indiana University Office of Publications. Printed by Indiana University Printing Services.

Table 1
Bloomington's Personal Income and Wage and Salary Employment Actual and Percent of State Totals, Selected Years, 1970-1987

	Personal Income		Establishment Employment	
Year	*Millions of $*	*% of State Total*	*Number*	*% of State Total*
1970	204,277	1.30	34,319	1.74
1975	306,429	1.31	36,837	1.80
1980	545,843	1.47	43,508	1.94
1985	762,521	1.60	47,671	2.10
1987*	888,324	1.64	51,934	2.15

** The latest year for which income data are available.*
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Table 2
Percentage Employment Growth, Selected Categories Bloomington and Indiana, 1985-1989 (August to August)

	Total Wage and Salary Employment		Manufacturing		Construction		Wholesale & Retail Trade	
	Bloom.	*State*	*Bloom.*	*State*	*Bloom.*	*State*	*Bloom.*	*State*
1989	9.4	2.3	10.2	-2.4	37.0	5.7	1.9	1.8
1988	6.8	3.7	8.9	-1.3	8.0	11.9	6.9	4.3
1987	2.3	3.5	11.1	3.5	13.6	2.2	4.1	4.1
1986	3.3	3.6	3.8	2.0	22.2	7.5	3.2	3.0
1985	3.4	1.4	-6.0	0.2	20.0	7.9	5.6	2.9

Source: Indiana Department of Employment and Training Services, Indiana Employment Review.

1990 at the same rate, given the weak forecast for the entire state. The local economy appears to have a good deal of momentum, which should result in continued above-average growth. There are areas of concern, however, such as the expected weakness in consumer spending generally, auto sales, and housing starts. A slowdown in the latter two areas would probably cause a slowdown in durable-goods production, an important factor in Bloomington's economy. Bloomington does not have major activity in autos and parts, but slow auto production would hurt much of Indiana—one market for Bloomington producers. The large employment by Indiana University does have a stabilizing effect on the local economy.

The tight labor market might cause new firms to hesitate to locate in Bloomington. It seems unlikely, however, that the low unemployment rate will in itself prevent continued growth of the local economy. Many workers commute between counties, so local labor supplies respond quickly to employment opportunities. And many Monroe County residents work outside the county. These people constitute a pool of potential workers, as do residents of surrounding counties. Thus, employment should be able to continue to grow at a modest rate despite the low unemployment rate in Monroe County.

Columbus

Patrick M. Rooney

Assistant Professor of Economics, Indiana University-Purdue University at Indianapolis, Columbus

The local labor market is showing mixed signals. For example, the number of persons employed has remained fairly constant over the last year, and the number of persons unemployed has increased about 5% since the third quarter of 1988. However, new unemployment insurance claims are up 11% from a year ago, and continued unemployment insurance claims are up 70%, suggesting a substantial softening of the local labor market. A large portion of this increase can be attributed to the labor situation at Arvin. As this situation is resolved, these numbers should fall substantially. The 20% increase in our help wanted advertising index, on the other hand, implies an increased demand for labor.

These statistics underscore the transitional nature of the local economy. As traditional manufacturing firms attempt to come to terms with the new age of international product and labor markets, the concomitant layoffs and cost restructurings, including lowering real wages, have generated increased unemployment. On the other hand, as new firms—many investing from abroad—start up, employment will increase, offsetting some of the pain of the restructuring era but at a lower real wage and benefit level. Many of the new jobs available are in the service sector. This is driving up our help wanted advertising index, although it must be realized that these jobs will also be at lower real wages. We should anticipate that real household earnings for many middle-class workers will fall and, to maintain adequate earnings, the

family may have to increase the number of members employed.

Real weekly wages have fallen 16% from 1972 to 1987 nationally, and this nationwide experience has been felt locally as well. For example, between 1978 and 1986, the top five manufacturing firms in Columbus lost 5,200 manufacturing jobs in the $11-$15/hour wage group. However, since 1985, 20 new firms and expansions of existing new firms have added an additional 3,100 manufacturing jobs. Most of these new jobs are in the $6-$8/hour wage range, which, though vastly preferable to unemployment, is still 30-60% lower than that to which local workers have become accustomed. Although this is consistent with the national experience and reflects the increased competition from lower-priced labor, both domestic and foreign, it is still a painful adjustment process.

On the other hand, as the service sector continues to grow more rapidly than the industrial sector, we would expect some upward pressure on the low end of wages, especially in the service sector. For example, much of the increase in the help wanted advertising index is probably due to the increased number of retail and restaurant outlets in the local region. Given that the economy has been growing for seven years and that the local unemployment rate has been quite low for the past few years, employers may find it necessary to increase wages, not only to attract but also to retain qualified workers. Some of these workers will come from existing employers, so there will be some churning or upward mobility as employees from one store, for example, trade in their experience as clerks to become assistant managers in new stores with no experienced employees.

These market forces will put additional pressures on local, regional, and national politicians to upgrade our educational systems. It has been noted that Americans pay the highest percentage of GNP to educate our children, yet the U.S. is at or near the bottom in worldwide comparisons based on standardized math and science tests.

This suggests that countries such as the Four Tigers (Hong Kong, Singapore, South Korea, and Taiwan), which are currently beating us in the export market, are also beating us in the race to educate their citizens. This implies that our standard of living can only fall in relative, if not absolute, terms.

The local construction and real estate sectors both show significant increases from a year ago, but both also indicate some softening between the second and third quarters of 1989. The estimated value of housing construction permits and the average value per permit grew 7% and 36%, respectively, between the third quarter of 1988 and the third quarter of 1989. Yet both fell 15% between the second and third quarters of 1989. Certainly all of these are not simply seasonal fluctuations. Likewise, the average market price of sold listings grew 5% from a year ago but is off 3% from the second quarter.

Nationally, the median-priced home increased 4.1% in the first six months of this year to $93,400. In Indiana, the median-priced home was almost $58,000. For Columbus, the median-priced home was $59,900 in the second quarter of 1989 (the most recent available data). With increases in the cost of

Table
Columbus Area Data

	3Q 1989	*2Q 1989*	*% Change*	*3Q 1988*	*% Change 3Q 1988-89*
Employment Data					
Number of Persons Employed	30,950	31,033	0	30,867	0
Number of Persons Unemployed	1,400	1,600	-13	1,333	5
Unemployment Rate	4.4%	4.9%	-10	4%	10
Continued Unemployment Insurance Claims—Columbus	1,863	1,905	-2	1,098	70
New Unemployment Insurance Claims—Columbus	245	340	-28	220	11
Help Wanted Advertising (1987=100)	194	156	24	162	20
Housing Construction Data					
Est. Value of Permits Issued (000s)	1,901.4	2,228.1	-15	1,783	7
Number of Permits Issued	22	22	0	28	-21
Average Value per Permit	86.4	101.3	-15	64	36
Residential Real Estate Data					
Number Sold	246	242	2	231	6
Average Days Listed	109	103	6	105	4
Average Market Price	$77,541	$80,180	-3	$73,875	5
Sales Data					
New Car Sales	517	483	7	463	12
Used Car Sales	2,643	2,708	-2	2,515	5

Sources: Indiana Business Research Center; The Columbus Republic; *Department of Technical Code Enforcement; Indiana Bureau of Motor Vehicles; Multiple Listing Service; Indiana Department of Revenue; Indiana Bureau of Economic Analysis.*

the median-priced home and in mortgage interest rates, it is not surprising that the housing affordability index has fallen both nationally and in Indiana. However, of the four regions in the country, the Midwest is still by far the most affordable. Housing in Columbus, although a bargain compared to the rest of the country, is about 3% more expensive than the rest of the state.

Both Cummins and Arvin continue to face short-term profit adversity. Cummins reported a net loss of almost $40 million in the third quarter, primarily as a result of sharply lower truck engine production. Adding this to the profits in the first half of the year has lowered their net earnings for the first nine months of 1989 to $3.6 million on $2.7 billion net sales. Although this is a big improvement over last year's net loss of $8.4 million on $2.4 billion in net sales, it has produced the need for further consolidation. Cummins has recently reported that it will be laying off an additional 300 production workers, giving unpaid days off for hourly staff employees, and reducing the pay for salaried personnel (5%) and the officers (7.5-10%).

Arvin's net earnings dropped 45% despite a 28% increase in net sales between the third quarter of 1988 and the third quarter of 1989. Arvin suggested that the fall in earnings was attributable to the implementation of a restructuring plan, the seven-month-long strike, and a slowdown of the U.S. auto industry. The company expects earnings to grow next year as labor costs fall and earnings from its 12 facilities in Europe increase.

Local Forecast

If, as we expect, the national economy continues to grow at a 2-2.5% pace in real terms, we should expect the current trends to continue. The transition from an almost exclusively durable-goods manufacturing economy to one that is more diversified but lower-paying will slowly continue. This may have an adverse effect on the local real estate market—especially for low- and middle-income buyers, who will find it increasingly difficult to save for a down payment and buy the quality of housing they desire. However, to the degree that households substitute labor for leisure by introducing more workers into the labor market, they may actually be able to increase their purchasing ability.

The bad news locally is that auto output is down 12.6% and truck output down 16% from a year ago. Given the nature of our local industrial base, this cannot be seen as beneficial. Although the fall in output has an adverse multiplier effect throughout the Midwest, and even the nation, it will be more poignantly felt here than in many other communities.

The good news is that with the three new malls and seven new firms that have indicated since October 1988 their plans to start operations in the Columbus area, there should be plenty of new job opportunities. The seven new firms are all either in the construction phase or have not yet broken ground. When they begin operations, they are expected to create almost 600 new jobs in their initial phases.

Richmond-Connersville-New Castle

Ashton I. Veramallay

Director, Center for Economic Education, Indiana University East

The Richmond-Connersville-New Castle (RCNC) economy can expect sustained noninflationary growth in 1990. It will be at a slower pace, but no recession is in the offing. As the national economy becomes less resilient, its effects will reverberate at the local level, given the area's interdependence and sensitivity to national economic performance.

For instance, employment growth in the manufacturing sector will be fairly moderate. There are already pockets of soft demand for locally manufactured goods of transportation equipment, electronics, electrical machinery, and nonelectrical machinery. At least 25% of the respondent firms to my survey are experiencing the side effects of the national slowdown on output, sales, and employment. Some, however, plan to expand in 1990, which will create employment growth provided there are no plant closings or major layoffs.

The service sector will register an increase in employment. Although 60% of the manufacturing firms in Wayne County, 66% in Fayette, and 50% in Henry are being affected by current economic conditions, they can expect an improvement in business activity as the demand for various services, from haircuts to personal computers, increases. This phenomenon is consistent with the ongoing transition toward a service/information economy. It should be noted that service jobs, which are often part-time, tend to spawn enterprises paying minimum wage or barely above it. Women often take these jobs. Overall, I expect the unemployment rate in RCNC to hover around 6-7%.

Given the above scenario, real personal income will rise by a meager 1-1.5%. This is comparable with the rest of the state, and it means that the region's median household income will remain below $20,000. It also means that per capita income, which is an index of economic development, will not rise significantly in 1990. Low education, low productivity, and low income are all interrelated in the development

matrix. Thus, an educated and enterprising labor force is essential to the local economy in the 1990s.

On a brighter note, construction activity, particularly in Richmond, is on the upswing. Business fixed investment and residential investment of more than $30 million, aided and abetted by falling interest and inflation rates, will give the local economy, especially the service sector, a much-needed boost.

Furthermore, consumer confidence in the national economy is relatively strong. An easy monetary policy by the Fed means that interest and mortgage rates should decline. So consumers, not expecting a recession or another stock market meltdown, are buying big-ticket items—though not on the same scale as in the early phases of the recovery. Therefore, local merchants can expect an above-average fourth quarter 1989 and a favorable 1990, provided there is no erosion of consumer confidence.

"Local merchants can expect an above-average fourth quarter 1989 and a favorable 1990, provided there is no erosion of consumer confidence."

Finally, the dollar's recent appreciation will dampen sales of firms engaging in international trade and consequently worsen the trade deficit. The dollar's appreciation reduces U.S. competitiveness and bolsters domestic demand for foreign goods. Foreign policymakers are likely to resist any further stimulus to their economies and raise their own interest rates to relieve upward pressure on the dollar, which is a key international currency.

In sum, the forecast for RCNC is for continuing growth at a slower pace, no recession, moderate employment gains, and favorable retail trade if consumer confidence is intact.

Kokomo

Dilip Pendse

Associate Professor of Economics, Indiana University at Kokomo

A year ago Kokomo's economy clicked on all cylinders. This year, however, the nonmanufacturing sector has kept the economic flame burning. The economic picture has remained as good as one can expect at this stage of the business cycle.

No doubt the first three quarters of 1989 have been a lot better than expected. Instead of a slowdown, the economy grew at a moderately healthy pace. Nonmanufacturing job numbers look peppy, whereas manufacturing job numbers are dismal. Home sales slackened off, while home building zoomed up, especially multifamily units. Retail, business services, health, and construction jobs reached new highs; government jobs dwindled. With its new "uptown" look, the city's downtown is poised for brighter days ahead. And although Kokomo did not bag any new manufacturing plants, the existing ones announced plans to pour at least $410 million into equipment and expansion. The nuisance index rose a harmless 0.3%, and the discomfort index remained stagnant around 10 for the second consecutive year.

Labor Market: Manufacturing Down, Nonmanufacturing Up

Through the first nine months of 1989, the labor market registered no sign of slowdown. The average monthly labor force for the first nine months of the year swelled to 41,820, the second highest since 1981. Not only that, on the average, 39,353 people held jobs each month, a ten-year high. Consequently, the average number of jobless people for the first three quarters of 1989 dipped to a 12-year low of 2,467. In June 1989, only 1,720 people remained jobless in Kokomo, the best monthly record since the low of 1,550 registered in November 1976.

The average monthly unemployment rate for January-September dipped to 5.9%, almost a percentage point below last year's and the best since 1978. In June, the unemployment rate hit 4%, a 12-year monthly low. Unlike a year ago, however, Howard County's unemployment rate stayed above the state rate for all months of the year.

What has kept Kokomo's economy alive and well is the nonmanufacturing sector. Its share of the total jobs has grown 20% in the past 12 years. New hirings in the nonmanufacturing sector eclipsed job losses on the manufacturing front. With 26,400 jobs at the beginning of the year, the nonmanufacturing jobs ballooned to 29,100 in July, an all-time high. With nearly 80% of the working-age population working, the labor market remained tight. The nonmanufacturing sector has grown so fast in the past two years that some jobs have gone begging. Perhaps because of the labor market tightness, hourly wages in many businesses remained above the minimum wage.

The largest average monthly gain in nonmanufacturing was registered in retail trade (587 jobs), followed by construction (437 jobs) and the business services sector, excluding health (400 jobs). The health care sector added another 100 jobs to reach a new average monthly high of 2,450. Education jobs increased by 163, but government services lost an equal number of jobs.

Manufacturing payrolls took a nose dive from 19,000 in January to a new low of 18,000 in August—down 6,000 from the 1977 peak. Manufacturing jobs, which declined continuously through the first eight months of 1989,

now account for 40% of the total jobs, down 10% since the beginning of the 1980s. Not only were fewer people working, they were working fewer hours. Through the first eight months of 1989, the average work week stood at 40.4 hours, compared with 42.1 hours for the same period a year ago. And because of the shorter work week and smaller manufacturing work force, the annualized earnings of manufacturing workers barely remained above last year's level.

Despite cooling off in the manufacturing sector and almost no overtime, manufacturing workers still earn much more than those in nonmanufacturing. Quarterly weekly earnings in manufacturing have more than doubled in the past ten years, from $419.48 in the first of 1979 to $862.65 now. Naturally, each manufacturing job still means a great deal to the local economy.

Pay Levels: Mighty High

Workers in the Kokomo metropolitan area are among the highest paid in the nation. According to the Department of Labor, the average annual pay level here jumped 7.3% in 1988 to $26,452, the 13th-highest level in the nation and the highest in the state. For 1980-88, the average annual pay in Kokomo rose by $9,295, or 54%. Kokomo's average annual pay level stands 16% higher than the national average. With a high percentage of two-income families, for the fifth straight year the percentage of households earning in excess of $50,000 a year in spendable income was the highest among the 12 metropolitan areas reported by *Sales and Marketing Management*. Yet Rand McNally's *Places Rated Almanac* (1989) ranked Kokomo 179th among 333 metropolitan areas in the nation. Alas, the Beach Boys' single "Kokomo," which rose to the top of the *Billboard* charts a year ago, didn't help gain respect for Kokomo after all.

Retail Sales

Also according to *Sales and Marketing Management*, retail businesses in Kokomo rang up sales of $792.8 million in 1988, up 2% from a year earlier. Higher spending on automotives (new and used autos, auto parts, and supplies) was largely responsible for the rise, followed by food, eating/drinking, and general merchandise. Last year's retail sales reflect the stronger health of the economy. Kokomo is among the top 60 MSAs in the country, with retail sales per household above $20,500.

Housing: A Banner Year for Construction Crews

Construction cranes hovered over several parts of the city, either for demolition of old structures or construction of new ones. Due to a significant jump in the construction of single-family homes and start-up on a few large business/industrial construction projects, the average monthly construction jobs leaped to a peak of 1,750, up 35% from a year ago. In July, 2,300 people worked on construction jobs, an all-time record.

The overall housing statistics for the first three quarters of 1989 represented a "pickup" but no "boom." The number of permits issued through the first nine months of the year totaled 513, or 9% higher than a year ago. The value of permits rose to $28 million, up 4% from a year ago.

While permits issued for residential construction totaled 424 through September, up 7% from a year ago, permits for nonresidential construction registered a 22% gain over last year's level. Permits for single-family dwellings through the first nine months of 1989 totaled 137, the third highest since 1979 and a hefty 25% above last year. Upscale houses are being built in the area to meet demands of yuppie families. The average dollar value of a permit for a single-family home in the outskirts of Kokomo has jumped from $80,000 in 1987 to more than $90,000 today. Most of all, multifamily building rebounded sharply from a year ago. Permits for duplexes, triplexes, and apartments surged 175% to 22, a sort of "mini-boom."

The value of 246 permits for home improvement projects (room additions, garages, swimming pools, patios, porches) totaled $1.65 million, compared to 1988's 265 permits valued at $1.91 million. Permits for both swimming pools and porches/patios hit the rocks for January-September, plunging more than 50% below last year's levels. Permits for mobile homes surged 108%.

Although construction crews and machinery operated in high gear, the home sales activity slackened off during the first six months of the year. Despite lower interest rates and a stronger labor market, the home sale volume was off by 15% from a year ago. The monthly median price zigzagged between $56,500 (April) to $41,500 (June). The demand for houses is still being met at the lower end of the price range. The housing affordability index, hovering around 200, is still perhaps one of the highest in the state. The highness of the index suggests that home affordability is not a serious problem, and pressure on price is almost nonexistent.

Business Investment

In nonresidential construction, 1989 should be billed as the year of Scott Pitcher. His firm, Fortune Management, successfully bought and restored, renovated, and refurbished several buildings in the downtown area. Believe it or not, Kokomo's downtown has become an amazing "uptown." And Kokomoans have become instant supporters of KUBS, Kokomo Uptown Business Society. The downtown has once again

emerged as the hub of the city's financial and business services sector. The downtown's new "uptown" look could become the magnet to attract new businesses to the area.

Through the first nine months of the year, permits for businesses surged 22% to 93, with permit values climbing to $21 million. Permits for additions and renovations outnumbered those for new business construction. Some businesses, such as BMJ Mold and Engineering, Inc. and Kokomo Springs, expanded their plant facilities in response to continued demand for their products, while others simply built new businesses/offices, including some eateries, a 63-unit motel, and a new shopping mall.

Other Positive Developments

In June, a new banking era began with the homegrown 59-year-old Union Bank and Trust Co. changing its name to Ameritrust Bank. In the following month, Chrysler's transmission plant crossed a historic milestone by producing its 500,000th ultradrive electronic four-speed automatic transaxle. In October, Delco Electronics, the world's largest producer of automotive pressure sensors for engine management, celebrated the production of its 50-millionth pressure sensor and its 10,000th radio for John Deere's farm tractors. Also in October, the local Chamber of Commerce celebrated its 75th anniversary, and the downtown officially unveiled its new "uptown" look.

Kokomo's two largest employers announced investment plans totalling $362.1 million to upgrade machinery and production techniques to remain competitive in the dynamic global environment. Chrysler Corporation will invest over the next five years nearly $337 million in its two Kokomo plants, and 95% of the expenditures will be for upscaling the existing electronic transaxle production line. No net gain in jobs is expected from this investment.

Construction work on Delco Electronics' $13.6 million expansion of the Corporate Technology Center, dedicated a year ago, got under way this year. The expanded facility is expected to provide enough space for 300 new engineering and research personnel. Also in April, Delco Electronics announced an $11.5 million project to expand and modernize its tool-making facilities.

In addition to automakers' investment plans, other major business investment spending plans totalling nearly $105 million in and around Kokomo were announced, with some already under way: a $75 million expansion of the Thomson Consumer Electronic Corporation's plant in Marion; a $10 million high-tech office complex in Kokomo; a $6.3 million plan for constructing new buildings and updating water systems at Grissom Air Force Base; a $5.2 million renovation plan at St. Joseph Hospital in Kokomo; a $4.4 million building improvement plan for three multifamily units run by the Kokomo Housing Authority; and a $3.5 million new shopping mall on the north side of Kokomo.

"The downtown's new 'uptown' look could become the magnet to attract new businesses to the area."

And there's more good news. In October, Kokomo Department of Parks and Recreation unveiled the master plan for a 1,000-acre Wildcat Creek Reservoir Park. In the same month, the Indiana Department of Commerce's Enterprise Zone Board approved Kokomo's bid for an enterprise zone, the 14th in the state. Beginning next year, a 2.3 square-mile area in Kokomo will officially become an economically depressed area. New businesses locating in the area will be eligible for various incentives. New zoning could help attract new business to the area and broaden Kokomo's industrial base.

After declining continuously for the past 4-5 years, fall enrollment in the area public schools edged slightly higher (1.2%). Parochial school enrollment continued its upward trend, although at a much slower pace.

In July, Cabot Corporation sold its remaining stake in its former Kokomo plant, now called Haynes International, to a New York-based investment firm. The new owner is not expected to make drastic changes in the plant's work force of 80 people. In November, more than three and one-half years after its permanent shutdown, and many legal battles in the bankruptcy court, 1,200 former workers of Continental Steel Corporation began receiving their medical/nonmedical settlement checks.

Kokomo's discomfort index, the sum of inflation and unemployment rates, remained around 10 for the sixth year in a row, a drastic improvement from 29 (1980). The nuisance index, reflecting changes in prices of ten routinely purchased goods/services, rose barely 0.3% over last year.

Finally, Peru bagged four new businesses: Sea Nymph, a manufacturer of boats; Othy Inc., a custom manufacturer of orthopedic devices for the medical and aerospace industries; Subaru Automotive Services Co., a procurer of spare parts for use in the Subaru-Isuzu plant in Lafayette; and Electro-Nite Co., a manufacturer and seller of expendable sensors and related instrumentation for the metals industry. These four businesses together will initially create nearly 130 jobs for residents of Miami County. In the near future they will

likely create an additional 200 jobs, provided the economic environment is conducive to job growth.

The Discouraging News

In the second week of November, Chrysler Corporation indefinitely idled 108 hourly workers at Kokomo's casting plant because of sagging auto sales. It also let go 32 engineering and clerical workers at the casting and transmission plants as part of its $1 billion belt-tightening plan.

As had been predicted in the past, Kingston Products, the 87-year-old manufacturer of parts for trucks, boats, and buses, permanently abandoned its operation in January, leaving behind 120 unhappy people. In addition, declining sales prompted the owners of Scotty's Sandwich Junction's four stores to shut down their business permanently.

All was not well on the labor front. Workers at three businesses joined the picket lines: 260 workers providing vending and cafeteria services to Delco Electronics; 180 workers of Indiana Bell; and 85 workers at Peru's 85-year-old Bryan Steam Corporation plant, a manufacturer of boilers. In general, workers went on strike on the issues of wages, health insurance benefits, and work hours. On the other hand, possible strikes by 24 salaried technical and engineering personnel at Chrysler's casting plant and 64 workers of Kokomo Gas and Fuel Company were avoided.

Kokomo's on-again, off-again air service to the outside world, mainly to Detroit, is triggering renewed consternation as the U.S. Department of Transportation's decision to drop the city from the essential services program takes hold. The decision to drop Kokomo was based on lack of sufficient passenger traffic. Consequently, Direct Air's management, the provider of air service, sold the airline to a Fort Wayne firm. Whether the new owner will keep Kokomo on the air map is uncertain.

Will Kokomo's Economy Rise, Fall, or Crawl in 1990?

My overall prognosis is mixed for the first year of the last decade of the twentieth century. I am concerned about the following developments in the local economy: the continuous decline in factory payrolls; the shorter factory work week; layoffs at Chrysler plants; reduced profit earnings at Delco Electronics; and further slowdown in the national economy.

These developments have laid the groundwork for a local recession. It appears that the peek-a-boo recession has begun in Kokomo. Additional shocks, such as layoffs at Delco Electronics or further cutbacks in overtime or the regular work week, could drag the economy into a recession. The odds are 60-40 that the economy will slide into a recession early in 1990.

However, next year's recession is not likely to be at all like the one seen in the early 1980s, with long lines of jobless people and unemployment rates in the mid-teens. Kokomo's service sector has grown strong in recent years and is more resistant to auto slumps. Additionally, local auto plants have cut out a lot of fat. The economy is far better prepared to weather auto slumps than in the early 1980s.

Although there will be isolated sectors of strength, next year's overall growth won't be great. No massive layoffs are expected in the auto sector, and manufacturing employment will likely decline from current levels by another 200-300. The average work week in manufacturing will fall further from current levels and will likely stay low through the first two quarters of 1990. Some temporary layoffs should occur at the beginning of 1990. Overall, unemployment should hover around 8%.

Job growth will continue in the retail sector, but with less zip than in 1989. Consumer spending should continue next year at a cautious pace, helping the overall retail sales volume rise to $840 million. The housing sector will remain soft. Construction-related jobs should dwindle by about 200. Home sales will remain weak and prices will register modest gains.

Although the short-term outlook is not entirely cheerful, the long-term outlook is bullish. The groundwork is gradually being laid for a more diversified economic base. The service sector has come of age. The auto plants are pouring millions of dollars into expansion and modernization. These expenditures will make them more competitive and will thus increase the security of existing jobs. Also, the planned expenditures could generate 300-500 new jobs in the near future. An ambitious growth plan launched by United Presidential Life Insurance Co. could generate an additional 100 jobs.

The new, sassy "uptown" look of the downtown area should become a catalyst for future growth. In addition, the new enterprise zone awarded to Kokomo could spur growth if the community leaders succeed in capitalizing it. Over the long haul, the Wildcat Creek Reservoir Park has the potential to become a tourist attraction, bringing tourists' dollars into the local economy. Opening of new plants in the surrounding areas could also create jobs for residents of Howard County. If Fuji Heavy Industries Inc. decides to place engine production in Peru, it could give a significant boost to the area's economy.

In a nutshell, although the short-term outlook is somewhat somber, the long-term outlook is bright. The manufacturing sector is still king in Kokomo and isn't likely to be dethroned in the foreseeable future.

Terre Haute

Marvin Fischbaum

Professor of Economics, Indiana State University

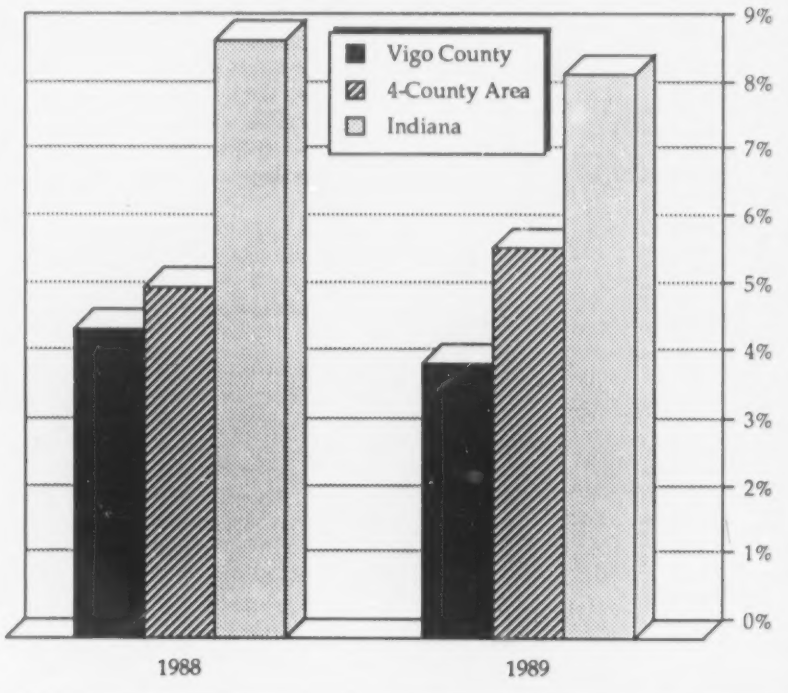
The 1980s began as a decade of decline for Terre Haute as factory after factory shut down. Mid-decade brought modest recovery, but 1987 saw a second wave of plant closings. Economic activity did not increase markedly in 1988, but announcements of future plant expansions along with new commercial ventures made the outlook for 1989 appear more hopeful.

At midyear it appeared that the economy had improved slightly. Employment statistics through March pointed to more people working, especially in retailing and health care, and the unemployment rate had improved to the point where it approximated state and national levels. The outlook for the rest of the year, though, had become guarded. The sale of Britt Airlines and Meis stores meant the imminent loss of perhaps 200 headquarters jobs, and Evergreen Express and another 200 somewhat lower-paying positions would soon follow. For the longer term, legal victories by opponents of BASF made Terre Haute appear increasingly unlikely as the site for a large automotive paint factory.

Actually, the second quarter of 1989 saw more than the usual seasonal bounce in employment. Despite the above-mentioned closings, much of the gains were retained through the summer months. By June the unemployment rate in the MSA improved to 3.3%. By September, with only modest retrogression, it stood at a very respectable 4.3%. Year-to-year comparisons of establishment employment showed a gain of 700 from March to March, rising steadily to a gain of 2,300, or 4.4%, from August to August. Terre Haute has not quite achieved one measure of full employment; the number of workers seeking jobs may still exceed the number of jobs needing workers. But minimum wage and near-minimum wage jobs are going begging, and employers voice complaints regarding declining quality in the pool of applicants for higher wage positions.

In terms of occupational structure, 1989 saw a continuation of the trend found throughout the 1980s. Expansion was concentrated in the service sector, and new jobs tended to be low-paying. Thus, over the year ending August 1989, manufacturing employment was unchanged. In the same interval, average weekly earnings in manufacturing fell from $403.94 to $396.15, while average hourly earnings fell from $9.71 to $9.50. A broader measure of wage income, payroll in covered employment, is provided on a quarterly basis, with the first quarter of 1989 being the most recent available. Therefore these data do not catch the expansion that occurred in the second quarter. But they do show quite clearly that over the previous two years, growth in the level of employment did not bring corresponding gains in payroll. Covered employment grew 2.6% per year, both in Vigo County and in the four-county area (including Clay, Sullivan, and Vermillion counties), while payroll in current dollars rose at an annual rate of 4.3% in Vigo County and 5.5% in the four-county area. For Vigo County, the increase in total payroll barely matched inflation, and real income per worker dropped substantially. **Figure 1** illus-

Figure 1
Payroll Percent Increase (Year ending March 31)



trates that the region continued to fall behind the state in each of the two years.

The residential housing market confirms that the improvement in the local economy has not led to runaway ebullience. For the 12 months ending in September, the value of new housing permits in Vigo County rose by just 1% in value, while the number of new units fell 12%. Comparing the third quarter of 1989 with 1988, sales of existing homes by realtors fell 23%, but average selling price rose 8%. Modest improvement was signalled by a decline in the number of houses listed and by a slight decline in the average duration of a listing.

Regarding nonresidential construction, the picture is more positive. Construction employment in August was up 600 workers, or 27%, over a year earlier. The value of nonresidential building permits recorded in the 12 months ending in September increased by 34% over the total for the previous year. Much of that activity can be traced to announcements made and permits issued late in 1988. The most significant new development in 1989 is the construction of a warehouse by DADC to free up space to add the production of video laser discs to the existing output of compact discs, singles, and CD-ROMs. Construction at Data Label heads up a fairly lengthy list of smaller industrial expansion projects. New retail establishments include an Osco Drug and Pic and Save supermarket, along with smaller shops, fast food restaurants, and a car wash. Considerable construction activity may be found at Indiana State University, Saint Mary of the Woods College, and Union Hospital. This activity should be sufficient to keep construction workers busy at least through the first half of 1990.

Terre Haute did attract at least one significant new industrial employer. A Japanese firm will produce tofu, or soybean curd, and market it to customers in the Midwest. The situation regarding BASF remains unsettled. After a court derailed an earlier agreement to take up 1,000 acres of a county-owned industrial park, BASF came back with a scaled-down version of its proposal that involves the purchase of 30 of those acres in an unimproved state. The county appears poised to accept the bid, and opponents are again ready to bring the matter to court.

As Terre Haute bids the 1980s good riddance, it looks to the coming year with some optimism. Terre Haute would not be greatly affected by any nationwide slowdown in automobile manufacturing or construction. A survey conducted by the Indiana State University Center for Research and Management Services indicates that businesses are about as optimistic as they were 12 months ago. Two-thirds of respondents believe that the local economy will show an improvement over the next two years; this represents a slight decline from last year. But 38% plan to expand their businesses in the coming year, and that is a substantial improvement.

Evansville

Maurice Tsai

Professor of Economics, University of Evansville

The Evansville economy will conclude its 1989 performance with an estimated 1.8% growth in the Evansville Area Business Index (see **Table 1**). It is slow growth but slightly higher than the previous year's 1.4%. Industrial production grew by only 1.3% because of a minor labor dispute in the middle of the year. Trade and service sectors continued to grow at 3.4%, slightly lower than the early estimate of 4.7%. The construction sector remained at the same level as in 1988, where high activities in the public and business construction were offset by a decline in residential construction. The transportation sector posted a 1% growth. The financial sector remained almost unchanged from the 1988 activity level. The local employment index improved by 2.1%. This was caused by two factors: an increase in employment opportunities, and a tightening in the local labor market due to faster growth in employment (3.9%) than in the local labor force (3.0%). Local unemployment dropped from the 1988 average of 8,340 to 7,117 in the first seven months of 1989, a 14.7% decline. The local unemployment rate was 5.4% in January, declined to 3.6% in June, and moved up to 3.7% in July. The seven-month average was 4.9% (see **Table 2**). It is estimated that the annual rate of local unemployment in 1989 should be below 5%, the lowest in the 1980s.

The national economy in 1990 is forecast by a majority of economists to grow 2% without recession. The Evansville economy is expected to have the same rate of growth, which is actually higher than the rates in the past three years. The manufacturing activities will increase by 2.5%, barring any labor disputes. The local industrial structure is less cyclical than the state and the nation in general. In 1990, weak demand for consumer durables will harm the local production of refrigerators, air conditioners, auto glass, and other accessories. However, slow but sustained consumer demand for nondurables will aid the local production of aluminum products and pharmaceuticals. Trade and service industries in the area should continue to grow at the 3% level. A rise in real personal income in 1990 should support the growth of medical services, retail businesses, and other service activities. Automobile sales should be at the same level as in the second half of 1989. In the coming year, construction activities will decline by about 13% from the 1989 level. The public construction will decline due to the completion of I-164, and the resi-

Table 1
Evansville Area Business Index (1977 = 100)

Period	Industrial Production	Trade & Services	Construction	Transportation	Finance	Employment	Composite Index
Quarterly							
3Q 1988	125.61	119.61	114.68	98.90	107.77	113.41	118.71
4Q 1988	124.99	122.15	113.31	97.33	110.35	115.58	119.86
1Q 1989	126.63	123.34	120.41	99.72	108.17	114.39	120.78
2Q 1989	123.57	123.71	127.75	99.24	107.81	114.53	120.89
3Q 1989	125.12	123.91	110.14	99.88	106.53	115.63	119.63
4Q 1989*	127.00	124.22	104.00	99.80	109.00	115.80	120.27
Annual							
1986	116.92	110.70	174.44	99.48	109.91	107.36	117.24
1987	120.57	115.24	131.46	98.04	109.98	109.52	116.58
1988	123.76	119.71	115.54	98.58	108.38	112.67	118.22
1989*	125.43	123.81	115.58	99.66	107.88	115.09	120.39
1990*	128.57	127.52	100.32	100.54	108.27	116.74	122.98
Annual Growth Rates (%)							
1986/1985	2.3	1.7	60.5	0.3	4.4	0.5	7.1
1987/1986	3.9	4.1	-24.6	-1.4	0.1	2.0	-0.5
1988/1987	2.6	3.9	-12.1	0.6	-1.5	2.9	1.4
1989/1988*	1.3	3.4	0.0	1.0	-0.05	2.1	1.8
1990/1989*	2.5	3.0	-13.2	0.9	0.4	1.8	2.0

Source: School of Business, University of Evansville.
*Note: * denotes estimates or forecast.*

Table 2
Evansville Labor Statistics

Year/Month	Labor Force	Employment	Unemployment	Unemployment Rates, S.A.* Evansville	Indiana	U.S.
1988 Average	142,900	134,790	8,340	5.9	5.2	5.5
1989						
January	142,700	135,000	7,700	5.4	5.1	5.4
February	144,380	135,000	9,380	6.5	5.1	5.6
March	145,150	136,730	8,420	5.8	5.1	5.2
April	146,740	139,840	6,900	4.7	4.0	5.1
May	148,330	141,820	6,510	4.4	4.0	5.0
June	151,720	146,240	5,480	3.6	3.3	5.5
July	151,590	145,960	5,430	3.7	3.9	5.3
Jan.-July	147,230	140,084	7,117	4.9	4.4	5.3

** S.A. denotes seasonally adjusted.*
Source: Indiana Department of Employment and Training Services.

dential construction may remain weak unless interest rates are significantly lowered. Transportation should continue to grow at a low rate of 1%, assuming moderate growth in manufacturing and trade activities. The financial sector will begin its slow growth in 1990 after three years' stagnation caused by the 1987 stock market crash. The improvement in the local employment should continue in the coming year at a lower rate of growth than in the past three years. The local labor market is tightening, and the coming raise in the minimum wage rate may have a slight adverse effect.

In summary, the Evansville economy will grow in 1990 at a rate of 2%. Nondurable manufacturing, services, and the recovering financial sector will

be the main supporting forces in the area economy. Employment will continue to grow, but the unemployment rate may rise to the 5% level.

Jeffersonville-New Albany (Louisville Area)

Fay Ross Greckel

Professor of Economics, Indiana University Southeast

As was forecast in this space last December, the Louisville area economy grew more slowly in 1989 than in the year before, with signs of weakness increasing. However, there were also sectors that grew robustly and are likely to continue to stimulate the local economy in 1990.

In the seven-county metropolitan area (Clark, Floyd, and Harrison counties in Indiana, and Jefferson, Oldham, Bullitt, and Shelby counties in Kentucky), about 7,300 more workers held jobs in the first nine months of 1989 than in the first nine months of 1988. However, this job growth was noticeably lower than the 10,000-15,000 increase that has been typical since 1984, and it really occurred early in the year. On a seasonally adjusted basis, as shown in **Table 1,** employment reached a peak in the first quarter of 1989, declined slightly in the second quarter, and remained flat in the third quarter.

Even when comparing 1989 to the previous year, gains were concentrated in nonmanufacturing and were very uneven. Nearly 8,000 more workers than in 1988 held service-sector jobs, particularly in establishments providing personal, health, and education services. State and local government employment rose by nearly 3,000 workers, although federal government employment declined. The transportation/communication/utilities sector gained about 500 jobs. However, construction employment declined by some 900 jobs, mostly in special trades, and retailing employed about 1,500 fewer workers than in the first three quarters of 1988. Most of the latter losses were jobs in eating and drinking establishments, reflecting the shrinking teenage labor pool for fast food restaurants—which all seem to be displaying "help wanted" signs—rather than an actual decline in job availability.

Table 1
Louisville Area Establishment Employment[1], 1985-1989

	Total Nonfarm	*Manufacturing*	*Nonmanufacturing*
Entire Metropolitan Area[2]			
Annual Averages			
1985	410,800	87,000	323,700
1986	421,200	86,200	335,100
1987	437,400	87,100	350,300
1988	450,800	87,900	362,800
Quarterly Averages			
1Q 1988	448,500	87,900	360,700
2Q 1988	449,600	88,000	361,500
3Q 1988	451,000	87,900	362,300
4Q 1988	454,300	87,700	366,000
1Q 1989	459,600	88,300	371,600
2Q 1989	455,700	87,500	368,000
3Q 1989	455,600	85,900	369,700
Clark, Floyd, and Harrison Counties (Indiana) Only			
Annual Averages			
1985	53,400	13,100	40,300
1986	55,600	13,200	42,500
1987	59,300	13,400	45,900
1988	59,800	13,500	46,300
Quarterly Averages			
1Q 1988	60,400	13,700	46,700
2Q 1988	60,000	13,500	46,500
3Q 1988	59,200	13,400	45,800
4Q 1988	59,200	13,400	45,800
1Q 1989	58,100	13,000	45,100
2Q 1989	58,900	12,900	46,000
3Q 1989[3]	58,600	12,600	46,000

1. Employment in establishments located in the area specified; quarterly data are seasonally adjusted by the author.
2. Consists of Clark, Floyd, and Harrison counties in Indiana, and Jefferson, Oldham, Bullitt, and Shelby counties in Kentucky.
3. July and August data only.
Sources: Indiana Department of Employment and Training Services; Kentucky Cabinet for Human Resources.

Manufacturing employment, which had remained fairly steady for about six quarters, declined by nearly 2,000 jobs in the third quarter. Durable goods industries, especially transportation equipment, accounted for most of the losses, due to the nationwide drop in demand for new cars and trucks. (In the metropolitan area, sales of new cars and light trucks were off 10% in the first nine months of 1989, although in the third quarter the decline was less than in earlier months; southern Indiana dealers fared worse than those in Kentucky.) Average weekly hours worked in area factories declined by about 2%.

Employment totals for Clark, Floyd, and Harrison counties crept slowly downward from the first quarter of 1988 through the first quarter of this year, but then rose again. Despite this reversal, on average, 1,300 fewer workers held jobs in these Indiana counties in the first eight months of 1989 than in the same period of 1988. Higher construction employment only partially offset declines in retail trade (those fast food restaurants again), government, and durable goods manufacturing.

Lower employment levels were accompanied by a rise in demand for social services. Dare To Care, the emergency food relief agency, recorded a 15% increase in individuals receiving food supplies.

In several other ways, the metropolitan area economy continued to look quite healthy. A regional study, for example, showed the Louisville area with more robust retail sales than any other location in the southeast. Real estate sales remained about level in Louisville and Jefferson County, but rose 6% in units sold and 14% in dollar volume in the southern Indiana counties.

Running contrary to the national trend, residential construction in Jefferson County increased by about 6.5% in the first three quarters of 1989, as apartment building picked up somewhat. Floyd County issued 10.5% more residential unit building permits than in 1988, reaching a new peak for the first nine months of a year. As **Table 2** indicates, building permits in Clark and Harrison counties were down slightly from the very strong levels of the previous year.

Nonresidential development continued at an impressive rate. During 1988, 570 new or expanding commercial firms had announced major building or investment projects totalling a record $951 million and promising an eventual addition of 23,000 area jobs. Much of the building—including new and expanding shopping malls and theater complexes in Clark and Floyd counties—was under way in 1989. More than 150 industrial firms also announced location or expansion plans that should eventually provide about 3,000 new manufacturing jobs.

Announcements of firms planning to build new facilities, expand their existing operations, or move to this area continued at an encouraging level this year, which bodes well for the local economy in 1990. Among the many projects likely to be under construction are two or three new office towers in downtown Louisville and the two major riverfront development projects in Jeffersonville.

This area has already gained prominence as a major health services center; it is becoming an important center for back office/data processing/forms handling activities (including Tesseract, two Sears processing centers, and First National Bank's National Processing Center) and such distribution activities as the rapidly expanding UPS operation. Expansion of these activities is almost certain to continue for some time.

Despite these strengths, we are likely to see slower growth overall for the next year, with a very similar pattern of healthy and soft sectors. Area employment is likely to remain weak for several months. Ford, General Electric, and other employers have already announced a series of temporary and permanent layoffs. These reflect several national trends: the slump in the automotive industry, which is likely to continue; the softening housing market nationally (though not locally) and the declining demand in other manufacturing sectors, both of which may be bolstered by the lower interest rate milieu that the Fed appears to be engineering;

Table 2
Residential Building Permits, 1979-1989[1] (number of dwelling units)

	Jefferson Co. Kentucky	*Clark Co. Indiana*	*Floyd Co. Indiana*	*Harrison Co.[2] Indiana*
Jan.-Sept. 1979	1860	463	316	n/a
Jan.-Sept. 1982	670	111	200	46
Jan.-Sept. 1985	2102	215	232	126
Jan.-Sept. 1986	2165	191	302	122
Jan.-Sept. 1987	3013	186	295	128
Jan.-Sept. 1988	1807	254	334	126
Jan.-Sept. 1989	1925	248	369	107

1. Number of residential units for which building permits were issued, including single-family dwellings, apartment units, and condominium units.
2. Excluding Corydon, for which data were not available.
Source: Kentuckiana Regional Planning and Development Agency.

and efforts by many firms to streamline operations in a more competitive national and international environment. In the latter case, output should remain at current levels, with a continuing need for supplies and for transportation and distribution services.

The main source of employment growth will continue to be the service sector, along with the decennial mushrooming of the Census Bureau work force. Real estate sales and residential construction will continue to be somewhat more vigorous here than nationally, especially if the lower interest rates prevail. Economic development officials on both sides of the Ohio River report an encouraging level of serious inquiries from both commercial and industrial prospects. On balance, the economy will continue to grow, though quite slowly.

Lafayette

Michael Watts

Associate Professor of Economics and Director, Center of Economic Education, Purdue University

A modest slowdown or even a mild recession in the national economy will probably have minimal impacts on the greater Lafayette economy next year. Indeed, it may not be noticed by most families locally.

Recent employment growth in manufacturing makes the area marginally more susceptible to the downward side of the business cycle, but in absolute terms most recent growth has occurred in the more stable nonmanufacturing sectors. Less than 20% of total employment in the area is now in manufacturing, about the same as in retail and wholesale trade. Another 30% is in educational services, and the

Table
Nonagricultural Wage and Salary Employment (in 000s) in Lafayette MSA, December 1989

	Employment	*% of Total*	*Change in Employment from December 1986*
Total	65.5	100.0	2.7
Manufacturing	12.5	19.1	1.2
Nonmanufacturing	53.0*	80.9*	1.5
Construction	3.3	5.0	1.2
Transportation, Communication and Utilities	1.9	2.9	0.3
Trade (Retail and Wholesale)	13.1	20.0	0.2
Financial, Insurance, and Real Estate	3.1	4.7	0.1
Health Services	4.2	6.4	-0.3
Other Services (Private)	6.5	9.9	--
Public Education Services	18.2	27.8	-0.1
Other Government Services	2.6	4.0	--

** Totals for the subcategories shown below do not equal this value due to rounding error.*

Employment Growth in Area Counties, 1986 to July 1989 (average)

Benton	10.1%	Montgomery	13.9%
Carroll	4.2%	Tippecanoe	6.4%
Clinton	9.0%	Warren	1.3%
Fountain	4.4%	White	18.6%

Average Price of Homes Sold in Lafayette MSA

1986	$58,829
1987	$60,281
1988	$65,436
1989 (First two quarters)	$68,376

Building Permits Issued (Single Family Dwellings)

	1986	*1987*	*1988*
Lafayette	44	67	87
West Lafayette	42	53	53
Tippecanoe County	208	223	212

Public School Enrollment, K-12

	1986-87	*1987-88*	*1988-89*
LSC	7,529	7,425	7,576
TSC	7,305	7,416	7,206
WLSC	1,981	2,036	2,004

Retail Sales in Tippecanoe County (in 000s)

1986	$775,119
1987	$764,070
1988	$778,653

Source: "Economic Analysis: Greater Lafayette Metropolitan Statistical Area and Surrounding Counties," Greater Lafayette Progress, Inc., October 5, 1989.

remaining 30% or so is spread out across other kinds of skilled and unskilled services.

There may be some short-term weakness in commercial construction as work on the new Subaru-Isuzu Automotive (SIA) plant winds down, but expansion phases continue there. Residential housing in the area is currently tight enough to think that construction employment in that market will hold steady or even grow somewhat in the face of slower national economic growth, especially if interest rates fall a bit more.

Of the major manufactured goods produced in the area, the national market for automobiles looks to be most vulnerable. But over the next year or two it would probably take a severe drop in automobile and pickup demand to lead to cutbacks at the new SIA plant, and that does not seem likely. On the other hand, several local companies, such as Alcoa and Lilly, produce goods that are experiencing very strong sales with little sign of significant weakening over the next year and continued growth quite possible.

Small engineering services and manufacturing "spinoff" companies may well continue to locate in Tippecanoe and surrounding counties in the near future. In fact, over the past three years employment growth has been stronger in Benton, Clinton, Montgomery, and White counties than in Tippecanoe. These small companies are actually the most likely source of growth in most years, but particularly for the next few years in this area of the state. Employment and local services are simply stretched too tight now to expect any new large plants, such as another SIA, in the near term.

The most dramatic construction projects in the area for the next year will be the new bridge over the Wabash River, which is part of the railroad relocation project, and finalized plans for major expansion of the Tippecanoe Mall or a new shopping mall. The mix and location of large retail outlets in the area is almost certainly going to change dramatically over the next three years. Net employment in this sector is likely to increase as Lafayette becomes more of a regional center for retailing activity and other firms, such as banking and financial services.

South Bend/ Mishawaka-Elkhart/Goshen

John E. Peck

Professor of Economics and Director, Bureau of Business and Economic Research, Indiana University at South Bend; based on an analysis of the latest available economic indicators for the area tracked by Indiana University at South Bend's Bureau of Business and Economic Research (BBER)

A look at local indicators—particularly those relating to employment—suggests that through late summer the South Bend economy had exceeded expectations reflected in the midyear area forecast (*IBR*, July 1989). The Elkhart area was continuing to experience the slowing of economic activity, a so-called "soft landing," that many of the nation's forecasters predicted. The accompanying **Table** summarizes the various indicators of local economic activity compiled by the BBER.

South Bend/Mishawaka

The South Bend/Mishawaka area's employment record improved once again in August, continuing a pattern that has been virtually unchanged for the past three years. The August rise can be attributed to performance throughout the area that outpaced the seasonal adjustments made to the indicators. A total of 6,900 more persons were employed county-wide in August 1989 than in August 1988. The decline in the manufacturing index is deceptive unless considered in a longer-term context. The July indicator, 76.0, was unusually high (June's was 73.0), and it was likely a statistical aberration. The true picture is more likely a 2% increase in seasonally adjusted manufacturing employment over the course of the summer.

Other South Bend/Mishawaka indicators were also generally positive. Energy sales trended upward. Car sales, although down marginally from July, were decidedly improved over August 1988. Truck sales rose dramatically in August and were 27% ahead of sales in the same period a year ago. The average number of days listed of resale homes was the second lowest in the last 12 months, and the number of new housing permits issued jumped a remarkable 41.9% over July and 35.6% over August 1988. It seems clear that little softening could be detected in St. Joseph County, given the aggregate indicators available through August.

Elkhart/Goshen

The picture was less rosy but still positive in the Elkhart/Goshen area. Again, employment data provide the best barometer for the community. Each of these measures suggests that in an aggregate sense, the community was holding its own. The overall nonagricultural employment index has fluctuated between 199.7 and 200.7 since February 1989. On the other hand, the manufacturing employment index has dropped 4.4 points (2.4%) from its peak in January 1989. Fully 54% of Elkhart County's employees work for manufac-

Table
Economic Indicators (Index Numbers Seasonally Adjusted)

	South Bend/Mishawaka					Elkhart/Goshen				
				% Change	From				% Change	From
	August 1989	July 1989	August 1988	July 1989	August 1988	August 1989	July 1989	August 1988	July 1989	August 1988
Employment Data										
Establishment Employment[1]										
Nonagricultural	135.6	135.0	129.2	0.4%	5.0%	200.5	199.7	197.5	0.4%	1.5%
Manufacturing	74.5	76.0	72.8	-2.0%	2.3%	181.5	180.8	182.0	0.4%	-0.3%
Nonmanufacturing	170.4	168.2	161.2	1.3%	5.7%	228.9	227.7	219.7	0.5%	4.2%
Unemployment Rate	4.0	4.9	5.1	n/a	n/a	4.7	4.0	3.8	n/a	n/a
Help Wanted Advertising[2]	122.2	129.4	151.8	-5.6%	-19.5%	101.6	92.2	175.1	10.2%	-42.0%
Utilities[3]										
Industrial Electricity Sales	160.1	159.0	167.3	0.7%	-4.3%	221.0	219.9	224.0	0.5%	-1.3%
Commercial Gas Sales	95.5	88.5	90.6	7.9%	5.4%	81.8	86.3	85.6	-5.2%	-4.4%
Industrial Gas Sales	81.9	64.8	74.6	26.4%	9.8%	48.4	48.1	63.7	0.6%	-24.0%
Retail Car and Truck Sales[4]										
New Passenger Car Sales	76.1	78.9	66.4	-3.5%	14.6%	74.2	61.6	70.3	20.5%	5.5%
New Truck Sales	297.9	240.9	234.4	23.7%	27.1%	101.9	100.4	117.7	1.5%	-13.4%
Housing Construction Data[5]										
Estimated Value of Permits	1164.1	881.5	790.7	32.1%	47.2%	503.6	628.1	526.4	-19.8%	-4.3%
Number of Permits Issued	194.7	137.2	143.6	41.9%	35.6%	140.2	177.5	136.4	-21.0%	2.8%
Average Value per Permit	628.2	680.0	574.3	-7.6%	9.4%	345.4	391.6	376.2	-11.8%	-8.2%
Residential Real Estate Data										
Number of Active Listings	1271	1208	1186	5.2%	7.2%	1445	1425	1309	1.4%	10.4%
Closed Sales										
Average Days Listed	54	60	54	-9.2%	0.0%	77	79	84	-2.5%	-8.3%
Average Market Price	$67,144	$67,689	$64,715	-0.8%	3.8%	$66,327	$65,019	$62,510	2.0%	6.1%
% of Sale to List Price	94.4%	95.3%	94.3%	-0.9%	0.1%	95.0%	95.0%	95.0%	0.0%	0.0%

1. South Bend 1969 = 100, Elkhart 1967 =100.
2. South Bend 1967 = 100, Elkhart 1984 = 100.
3. 1967 = 100.
4. South Bend 1967 = 100.
5. South Bend 1967 = 100, Elkhart 1970 = 100; St. Joseph County, excluding cities of South Bend, Mishawaka, Osceola, Walkerton, and New Carlisle; Elkhart County, excluding cities of Elkhart, Goshen, Nappanee, and Millersburg.

turers. Elkhart's manufacturing economy and its ties to the RV industry make it more vulnerable to softening of the national economy than is the case with St. Joseph County, where only 20% of the workers are employed in manufacturing.

Other Elkhart/Goshen indicators provide a similarly mixed view. Energy sales and truck sales moved only marginally. Housing activity, on the other hand, remained vigorous. The one-month decline in the number of new housing permits issued was from a randomly high 177.5 in July to a very respectable 140.2 in August. The index has averaged close to 140 for the past three years.

Outlook

Overall, performance in both communities through August was good. Data are not yet available, but there is a feeling among local observers that additional softening has occurred in the fall, and many analysts continue to predict slow but not recessionary times in the

months ahead. That scenario would mean further softening in Elkhart/Goshen and moderation catching up with South Bend/Mishawaka. Thus, it is likely that employment growth will slow to the 1-2% range in South Bend/Mishawaka and go marginally negative in Elkhart/Goshen.

Madison and Delaware Counties

Gilbert L. Crouse

Professor of Economics, Anderson University

Madison County

With a significant increase in construction activity and the start-up of a number of new firms, growth in the Madison County economy was much more expansionary in 1989 than expected—establishment employment grew by 1,000 jobs. This was due in part to the fact that manufacturing employment declined by only 200 jobs. The 1989 decrease was a little better than 1988's decrease of 300, and far better than the 1,100 decrease in 1987. Coupled with the slowdown in the rate of shrinkage in the manufacturing sector was an increase of 1,100 in nonmanufacturing employment, which was 200 more than the increase in 1988 but exactly the same as 1987's increase. Growth in nonmanufacturing employment has averaged 1,100 jobs per year since 1982. As real output in the national economy is likely to grow at only a 2-2.5% rate, we expect nonfarm establishment employment's average level in 1990 to be only 500 workers higher than in 1989.

On a cumulative basis, manufacturing employment has declined since 1985 by enough to erase essentially all the gains made during the recovery from 1983 to 1985. Our estimate for average manufacturing employment during 1989 is a little under 17,000, only 100 to 200 jobs above the level in 1982, a time when unemployment soared to over 20%. The forecast for manufacturing employment in 1990 calls for an additional decrease of 200 to 300. However, if auto sales continue to worsen instead of moderating, the drop will be double or even triple this amount.

Nonmanufacturing employment by comparison has added 7,700 new jobs since 1982. Retail sales account for 2,500 of these and services for 3,000. To round out this positive picture of overall growth in services, we must add that the growth rate in service-sector jobs has been steadily declining during the last three years—from an increase of 500 new jobs in 1987, to 400 in 1988, to only 200 new jobs in 1989. With only very modest growth expected in the local economy, the slowdown in service sector expansion is not likely to be reversed in 1990. Our forecast is for an increase of only 100 to 200 new service sector jobs in 1990, a slightly larger increase of 200 to 300 new jobs in retail sales, and an increase in nonmanufacturing employment overall of 700.

The impact of the drag on the economy from the continuing decline in manufacturing employment will be felt all the more if the growth in the service sector continues its slowdown. Although growth in both retail sales and services during the 1980s raised establishment employment to a little over 10,000 jobs in each of these sectors, income generated per worker in services is almost double that in retail sales. Thus, it is far easier to make up the decline in income from lost manufacturing jobs with new service sector jobs than with jobs in retail sales—income generated per worker in manufacturing is 3.5 times that per worker in retail sales, whereas it is only 1.8 times that per worker in the service sector.

In the decade from 1977 to 1987, manufacturing employment declined to 67% of its 1977 level, and real manufacturing income declined to 73% of its 1977 level. During this decade, inflation averaged 6.5%. After recovering from a 20% drop during the 1980-82 recession, employment in retail trade achieved the same level in 1987 as in 1977. As a consequence, real income generated per worker in retail trade declined significantly, because the rate of growth of income in retail trade averaged only 4.5%. Service sector employment increased by an average rate of 3.4%, and real service income increased by an average rate of 4.2% for a very modest increase in income generated per worker.

Madison County versus Delaware County

From 1983 to 1989, Madison County's level of establishment employment increased from 43,700 to 49,900, and Delaware County's from 44,900 to 53,000 (**Tables 1** and **2**). During the period from 1983 to 1987, the latest year for which income data are available, personal income in Madison County grew from just under $1.42 billion to a little more than $1.76 billion, and in Delaware County from $1.26 billion to $1.57 billion. In Delaware County, as compared to Madison County, the number employed is greater and the increase in employment a little larger, but the reverse holds true with regard to the level of income and the increase in income. Manufacturing produced some $280 million more income in Madison County than it did in Delaware County in 1987, for a 37.1% share as opposed to a 23.9% share.

Despite the size difference in their manufacturing sectors, both counties have experienced similar declines in the share of income generated by manufacturing. From 1977 to 1987 in Madison County, manufacturing's share declined 16%. In Delaware County, it declined by a little more than 9%. Similarly, both counties have seen the serv-

Table 1
Establishment Employment—Madison County (in 000s)

Year	Total	Manufacturing	Non-manufacturing	Retail Trade	Services
1983	43.7	17.4	26.3	8.3	8.0
1984	46.6	19.0	27.4	8.6	8.2
1985	48.0	19.1	28.9	9.1	8.8
1986	48.6	18.7	29.9	9.4	9.2
1987	48.4	17.4	31.0	9.9	9.7
1988	48.9	17.1	31.9	10.1	10.1
1989[1]	49.9	16.9	33.0	10.4	10.3
1990[2]	50.4	16.6	33.8	10.6	10.5

1. Estimated on the basis of the first nine months.
2. Projected.
Source: Indiana Department of Employment and Training Services.

Table 2
Establishment Employment—Delaware County (in 000s)

Year	Total	Manufacturing	Non-manufacturing	Retail Trade	Services
1983	44.9	10.5	34.3	9.3	8.5
1984	46.6	11.3	35.2	9.6	8.9
1985	47.6	11.1	36.5	9.8	9.5
1986	48.8	10.9	37.9	10.3	9.9
1987	50.2	10.7	39.5	10.6	10.3
1988	51.9	11.0	40.9	10.8	10.9
1989[1]	52.9	11.1	41.8	11.2	11.3
1990[2]	53.5	10.9	42.6	11.5	11.5

1. Estimated on the basis of the first nine months.
2. Projected.
Source: Indiana Department of Employment and Training Services.

ice sector's share increase by 4% during the ten-year period. During the first half of the period, retail trade's share of income shrank by 0.8% in both counties. It dropped another 0.4% during the recovery from 1982 to 1984 as manufacturing income levels rebounded. Then as growth slowed to a more normal rate, retail trade's share returned to its 1982 level.

Though the share of dividends, interest, and rent is slightly larger in Delaware County than in Madison County, the pattern of variation over the business cycle is nearly the same. In contrast, the share of transfer payments is a little larger in Madison County than in Delaware County. In Madison County, transfer payments' share consistently changed in the opposite direction from the change in the manufacturing sector's share of income. On the other hand, in Delaware County in three out of the seven years (1983, 1985, and 1987), the direction of change coincided, though admittedly the magnitude of the perverse changes was small.

From 1983 to 1989, manufacturing's share of employment in Madison County dropped from just under 40% to slightly less than 34%. In Delaware county, the decline was only from 23.4% to 21.0%. The decreases in manufacturing employment that we are forecasting for 1990 would further reduce these shares to 33% in Madison County and 20.4% in Delaware County.

In both counties, service sector employment has grown at an average rate of nearly 5% annually. As a result, the service sector's share of employment has risen in Madison County from 18.3% to 20.6%, and in Delaware County from 18.9% to 21.4%. Retail trade employs 800 to 1,000 more workers in Delaware County than in Madison County. Its share of employment has risen from 20.7% to 21.2% as manufacturing has declined by 2.4 percentage points, whereas in Madison County, retail trade's share of employment has risen from 19% to 20.8% as manufacturing's share has fallen by 6 percentage points.

In 1987, the level of income was nearly $200 million greater in Madison County than in Delaware County. But during the period from 1984 to 1987, employment grew at an average rate of 2.5% in Delaware County, producing a cumulative increase in the level of income of $209 million. This compares with the average growth in employment of 1.5% in Madison County, which produced a cumulative increase in income of only $170 million.

Despite the fact that the average rate of growth of employment in retail trade from 1984 to 1987 was greater in Madison County than in Delaware County, the latter's average rate of growth in income from retail trade was greater than the former's. In the service sector, both the rate of growth in employment and the rate of growth in income have been greater in Madison County than in Delaware County. But as of 1987 the service sector was still approximately 10% larger in Delaware County than in Madison County, in both employment and income generated.

A year-by-year comparison of the annual growth rates of both employment and income in Madison and Delaware counties from 1980 to 1987 clearly shows the benefits of the latter's more diversified economy. With a smaller reliance upon durable goods manufacturing, Delaware County did not experience as much variation in its rate of growth in nominal income. Its minimum growth rate was 0.1% in 1982; its maximum was 8.9% in 1980. By contrast, Madison County experienced a decline of 2.4% in 1982 and a 12.6% increase in 1984.

Conclusion

Although both counties were hit hard by the combined forces of inflation and unemployment in the first five years of the decade from 1977 to 1987, Delaware County's economy proved considerably more resilient. With its more diversified economy and less variable growth rate, Delaware County was able to achieve an average growth rate for the decade of 6.6%. This, combined with an average decline in population of 7.4%, produced an increase in its real per capita income from just under $9,500 in 1977 to nearly $11,100 in 1987. Madison County achieved a slightly lower growth rate of 5.7% and an average decline in population of only 4.8% a year, which took real per capita income from $10,800 in 1977 to just under $11,300 in 1987. The clear lesson is that municipal and county business and governmental leaders should work as hard to promote diversification in their economies as they do on luring in new firms in the high-paying durable goods manufacturing sector.

Given Madison County's continued heavy dependence on the automobile industry, which is in the contractionary phase of its cycle, the county's growth potential in 1990 appears to be about half that of Delaware County. Our most likely scenario for 1990 calls for an increase of employment of 400 to 600 workers and 1.6% growth in income for Madison County. For Delaware County, we expect an increase in employment on the order of 500 to 800, which should produce a 3% increase in income. In neither county do we expect to see income achieve the 4-5% rate of nominal growth required to keep up with the projected rate of inflation.

Indiana Business Review

Published six times each year by the Indiana Business Research Center, Graduate School of Business, Indiana University.

Jack R. Wentworth, Dean; Morton J. Marcus, Director and Editor; Brian K. Burton, Managing Editor; Melanie Kearns, Graphics and Production; Melva Needham, Dorothy Fraker, Circulation; Jo Browning, Office Manager. Printed by Indiana University Printing Services.

Unless otherwise noted, information appearing in the *Indiana Business Review* is derived from material obtained by the Indiana Business Research Center for instruction in the School of Business and for studies published by the Center. Subscriptions to the *Indiana Business Review* are available to Indiana residents without charge.

Indiana Business Review

Indiana Business Research Center
Graduate School of Business
Indiana University
Bloomington, IN 47405

December 1989

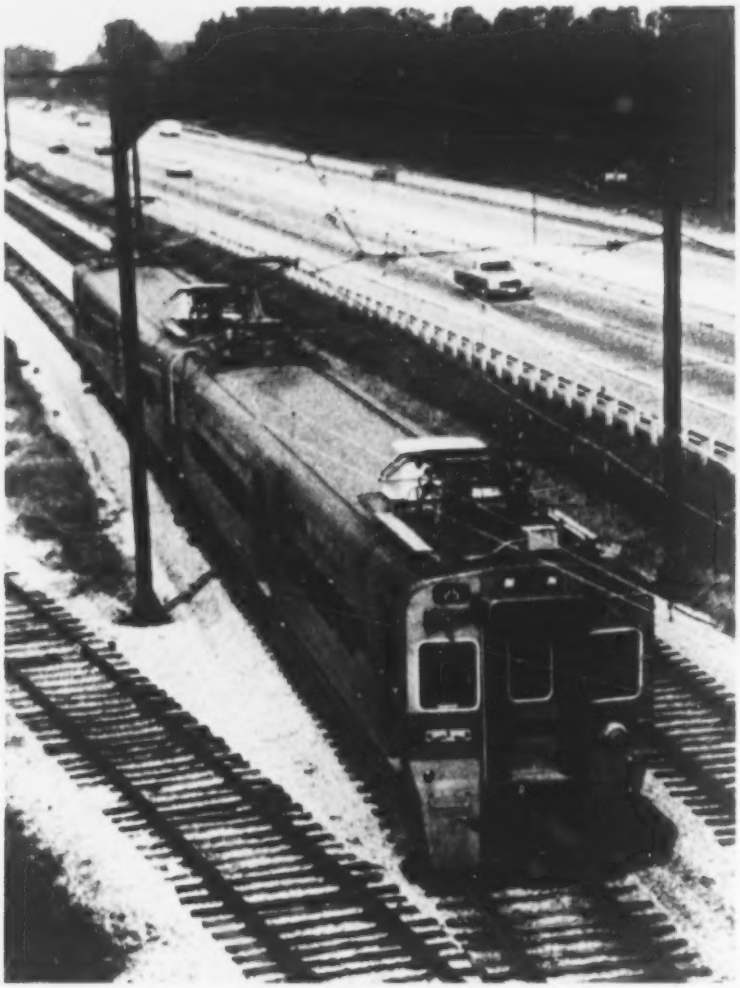
Note to subscribers: This is the final number of Volume 64. There will be no number 5 or 6; the next issue will be Volume 65, Number 1.

Nonprofit Organization
U.S. Postage
PAID
Bloomington, Indiana
Permit No. 2

00899 8809
Cheryl Waldman
Congressional Info Serv.
4520 East West Highway
Bethesda MD 20814

12160-1 A

Indiana Business Review



The Electric Interstate: An Update on the South Shore Railroad

A publication of the Indiana Business Research Center, Indiana University School of Business

May 1990

Contents

1 George M. Smerk
The Electric Interstate

9 Richard Michels
Indiana and Federal Highway Dollars

Indiana Business Review
Volume 65, Number 1
May 1990

Published six times each year by the Indiana Business Research Center, Graduate School of Business, Indiana University.

Jack R. Wentworth, Dean; Morton J. Marcus, Director and Editor; Brian K. Burton, Managing Editor; Melanie Kearns, Senior Editorial Assistant; Melva Needham, Dorothy Fraker, Circulation; Jo Browning, Office Manager. Printed by Indiana University Printing Services.

Unless otherwise noted, information appearing in the *Indiana Business Review* is derived from material obtained by the Indiana Business Research Center for instruction in the School of Business and for studies published by the Center. Subscriptions to the *Indiana Business Review* are available to Indiana residents without charge.

The *Indiana Business Review* is available on microform from University Microfilms International, Ann Arbor, Michigan.

The Electric Interstate

George M. Smerk

Professor of Transportation and Director, Institute for Urban Transportation, Indiana University, Bloomington.

Photos (including cover photo) by Donald R. Kaplan.

At 7 a.m. on December 30, 1989, a dispatcher employed by the Northern Indiana Commuter Transportation District (NICTD) entered the dispatcher's office of the Chicago South Shore & South Bend Railroad at Michigan City, Indiana, and took control of the operation of all freight and passenger trains. With that symbolic act the future of both the South Shore Railroad and NICTD changed dramatically. After years of merely supporting the service by providing public funds under contract with the railroad, NICTD became the operator of the South Shore. If all goes according to plan, NICTD hopes soon to become the owner of the railroad. At present, the South Shore is owned by the Anacostia & Pacific Corporation, which operates the freight service.

The NICTD takeover of operations was the culmination of years of uncertainty for the electric commuter rail service that links South Bend with the Chicago Loop at Randolph Street Station. Stability of the rail service and control of costs were the animating forces behind NICTD's action. It was also following a pattern that evolved during the last several decades in the provision of commuter rail services in the United States. At one time, commuter rail service was operated and supported—and subsidized—by private railroad companies. As the service deteriorated and discontinuation was threatened, the privately owned services operated under contract with public agencies, usually beginning in the 1960s and early 1970s. Finally, these services were taken over by public agencies through ownership of the rail commuter lines. At the beginning of 1990, NICTD did not yet own the South Shore Railroad but was moving steadily in that direction.

The 1980s saw substantial increases in ridership on the South Shore, from about 1.6 million riders per year in 1980 to about 3.5 million in 1989. There was even better news for the economy of northwest Indiana served by NICTD's South Shore trains. Studies by NICTD show that the South Shore trains helped Hoosier commuters bring $120 million a year in wages and salaries (in 1987 dollars) back into Indiana from jobs in Chicago. The future promises to enlarge that role, thanks to stabilization of South Shore service and the opportunity for NICTD to make increasingly positive changes in the service.

History of the South Shore

The South Shore line was constructed in the heyday of interurban electric railways in the Midwest. In 1906 the Chicago, Lake Shore & South Bend Railroad was projected to operate between South Bend and Hammond with the eventual goal of extending its service to Chicago. With the assistance of Cleveland financiers, service between South Bend and Hammond commenced on June 30, 1908, when the first electric car ran between the Michigan City shops and South Bend. The hope of the CLS&SB was that the Illinois Central Railroad would build a connection between Hammond and its main line tracks near Pullman, Illinois. This hope was realized when the Illinois Central built the Kensington & Eastern Railway between 115th Street at Kensington, just south of Pullman, and the Indiana/Illinois state line at Hammond.

Regular passenger service between South Bend and Hammond began on September 6, 1908. At that time passengers bound for Chicago transferred to the Lake Shore & Michigan Southern Railroad to complete their trips. When the Kensington & Eastern was completed, service on the CLS&SB was extended to Pullman, Illinois on April 4, 1909. At Pullman passengers changed to Illinois Central suburban trains for the remainder of the trip into the Chicago Loop.

One of the most important factors for the future of the South Shore in the original construction of the CLS&SB was that it was built to steam railroad standards, with modest curvature and grades. Rather than curling around every courthouse along the way, as was a common practice of Midwest interurban electric railways, the CLS&SB was relatively straight, avoiding all sharp curves in its street running in South Bend, Michigan City, and East Chicago.

Samuel Insull

The CLS&SB did not do well financially; despite much patronage and high revenues during World War I, it was in tattered financial and physical shape by the early 1920s. After soldiering on for a while, the railroad entered receivership on February 28, 1925.

Public utilities tycoon Samuel Insull became interested in the potential of the South Shore, both as an operating railroad and as a right-of-way to use in connecting parts of his electric utility holdings in the northwest part of Indiana. Insull incorporated a new railroad named the Chicago South Shore & South Bend on June 23, 1925. A few days later the Chicago, Lake Shore & South Bend was sold to the CSS&SB for $6,470,000. Samuel Insull took charge on July 15, 1925, and immediately began to make major capital improvements to the railroad that would stand it in good stead for more than 50 years. Heavy investments were made to the track and the electric power supply. All-steel cars replaced the wooden interurban cars that had been the original equipment of the railroad. As the physical improvements were completed, service was refined to attract more passengers. Dining-car service was offered on the South Shore, and a vigorous campaign of marketing and promotion was undertaken as the railroad blossomed under Insull dollars and the Insull touch of first-rate management.

A major enhancement was direct service by the South Shore into downtown Chicago. At the same

time that Insull made improvements to the South Shore, the Illinois Central Railroad elevated its tracks along the west shore of Lake Michigan and electrified its commuter service. Both the ICRR and the South Shore used 1500-volt direct current to power their electric cars. Insull management moved aggressively into the freight business—which was to be critical in the South Shore's survival—and purchased a fleet of electric locomotives. The South Shore bought land for a bypass around the heart of East Chicago to eliminate extensive street running there. But that improvement was delayed by events beyond Insull's control.

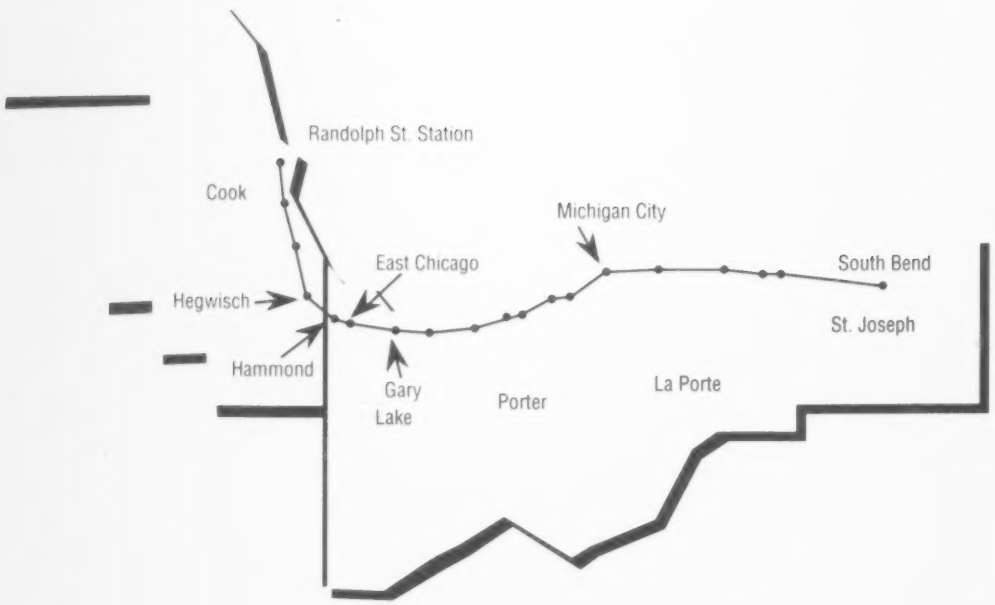
The Great Depression struck the South Shore very sharply, and the railroad declared bankruptcy at the end of September in 1933. Reorganized by 1938 as prosperity began to return to the country, the South Shore, as an independent company, moved ahead, buoyed by a profitable freight service. During the war years both freight and passenger service boomed, with a high of six million passengers carried by the South Shore during 1945. So great was the demand for service that a number of the 1920s-vintage 60-foot-long steel cars were cut in half and a 17-1/2-foot section spliced in the middle to provide more room for patrons.

After the Second World War, the South Shore continued to operate with a successful freight service. Passenger service began to lose a little more money each year as ridership slowly but certainly dwindled, wooed away by the blandishments of the automobile. Nevertheless, the construction of the Indiana Toll Road presented the South Shore with a major opportunity for long-sought improvements. The railroad land around East Chicago was purchased by the Toll Road Commission. The commission constructed an elevated right-of-way for the joint use of the highway and the railroad. When the bypass was opened for rail service on September 16, 1956, the South Shore was able to cut ten minutes from its schedules.

The Chessie Era

In the 1960s, predominantly interested in the freight potential of the South Shore resulting from construction of new steel mills, the Chesapeake & Ohio Railway—the Chessie System—purchased the South Shore. In the proceedings before the Interstate Commerce Commission, the Chessie noted its interest in freight but promised that it would continue the passenger service. There was support for the Chessie takeover from communities along the line; the hope

The Route of the South Shore Line



was that the prosperous Chessie would continue to improve the passenger service.

As a small independent railroad, the South Shore was unable to make the investments needed to maintain and improve its service. The passenger equipment in service when the Chessie took over was 40 years old and showing definite signs of its age. There was also deterioration of fixed facilities. The Chessie purchase was authorized by the Interstate Commerce Commission on November 10, 1966. The Chessie took over the South Shore on January 3, 1967. The passenger operating deficit, which had been relatively modest (ranging from $300,000 to $600,000 per year), began to increase during the inflation spurred by the Vietnam War. Pleading financial problems, the South Shore successfully petitioned for a fare hike and a substantial reduction in passenger service in 1971. Regular weekday train service was cut back from 72 trains to 36. Hourly service to South Bend was reduced to only a few round trips a day. Despite the savings from the cutbacks, South Shore management continued to talk openly of eliminating the passenger service.

In 1975 the State of Indiana began to provide funds to help match federal grants of capital and operating aid from the Urban Mass Transportation Administration. The Institute for Urban Transportation (IUT) at Indiana University worked under contract to the office of Governor Otis R. Bowen to manage the state's program, there being no state agency to handle that task at the time. Hearing noises from the South Shore that passenger service would be discontinued shortly, IUT questioned the wisdom of providing scarce state funds to a service that was about to quit. Officials in the governor's office also pondered the value of the service to the state. In the summer of 1976, IUT secured federal and state funds and commenced a cost/benefit study of the transportation corridor in northwest Indiana to determine if preserving the South Shore service was worthwhile. The find-

At a street crossing in Hammond

ings of the study showed that continuation of the service was indeed of benefit to the state and to the local communities; this study eventually became the justification for a federal capital grant to make substantial improvements to the South Shore.

Meanwhile, on March 19, 1976, the Chessie System filed with the Interstate Commerce Commission a petition to discontinue all passenger service on the South Shore Railroad. Passenger losses for 1975 had amounted to $2,580,000. The railroad was also spending $1 million for emergency repairs to the seriously deteriorated cars. On a more positive note, the Regional Transportation Authority of Northeastern Illinois had agreed to cover 18 percent of the South Shore passenger operating deficit, based on the percentage of South Shore riders living in Illinois.

While the IU study continued, the ICC held hearings across northwest Indiana and in Chicago. Noting that the state of Indiana was attempting to take steps to provide support, the ICC held that the South Shore had to continue to operate until February 8, 1978. After that the ICC would determine whether or not the passenger service should continue.

NICTD

In the General Assembly of 1977, the Indiana legislature passed enabling legislation for the creation of commuter transportation districts. The passage of the law received strong support from county officials in the area served by the South Shore and from state legislators representing the area. Governor Bowen also supported the measure.

Using this law, representatives of Lake, Porter, La Porte, and St. Joseph counties, along with the appointee of the governor, met on June 24, 1977 and formed the Northern Indiana Commuter Transportation District. NICTD was to be the public agency through which public funds would flow to continue the operations of the South Shore Railroad. NICTD had no taxing authority, but a special appropriation of $3.6 million from the General Assembly was to pay half of the local share of a capital improvement program for the South Shore that was expected to cost about $36 million. The four counties matched the state money dollar for dollar.

NICTD got under way with no money and no staff of its own. The initial staff was supplied by the Northwestern Indiana Regional Planning Commission (NIRPC), which had—and has—a fine history of acting as an incubator for worthwhile public activities in that part of the state. In addition to acting as the pass-through agency for operating subsidies from the federal and state governments, NICTD was to develop the proposals for federal aid and state matching aid for much-needed capital improvements to the railroad.

From its very first meeting, NICTD's goal was to preserve the South Shore commuter service. It was imperative that improvements should be made as soon as possible because of the serious deterioration of the rolling stock and the threat to passenger safety and service that continued deterioration would pose. The NICTD staff focused on three items for immediate capital improvement: new cars to replace those of vintage 1926 and 1928; improvements in the power supply to upgrade the 1500-volt DC power system that had been installed by Insull in the mid-1920s and was seriously outmoded and expensive to operate; and upgrading of the 1920-vintage shop facilities at Michigan City to care for the new rolling stock. The small NICTD staff immediately began the process of applying for federal capital and operating assistance.

New rolling stock was obviously an urgent matter. Despite NICTD's best efforts in 1978 and 1979 to get a competitive bid from an American manufacturer, the successful low bidder was the Sumitomo Corporation of America, which acted as agent for Nippon Sharyu Siezu Kiesha, the Japanese Rolling Stock Company. The cars were to be 85-foot-long stainless steel vehicles, a design based essentially on the cars supplied by the Budd Company to the Pennsylvania Railroad commuter service in the Philadelphia area in the 1960s. NICTD wanted to purchase a well-tested design so its new cars would be robust, easy to maintain, and free of the difficult problems often found in unproven designs.

The prototype car was delivered to the South Shore in early January 1981; extensive and intensive testing began in February. With the new car being tested and deliveries of regular production line cars about to start in the early fall, the NICTD board and its small staff held a retreat in the summer of 1981 to take a look at the future. Its upshot was that the Institute for Urban Transportation was to develop a strategic plan for the immediate future of NICTD and the South Shore. A matter of major concern was the proposed cutback in federal funding for urban mass transportation threatened by the Reagan administration. Elimination of federal operating aid, as proposed in the Reagan budget, would be disastrous for any hope of continuing the South Shore service.

As the strategic plan was in process, it was clear that NICTD needed to develop its own image by moving out from under the aegis of NIRPC. It was also evident that the profitable freight service could, if the South Shore were owned by NICTD, help bail out the money-losing passenger service. With substantial cuts or elimination of federal operating aid, and with no local taxing authority, the purchase of the railroad seemed to be a wise idea.

NICTD was not without some financial means despite its lack of local taxing authority. In 1979 the

Indiana General Assembly established the Commuter Rail Service Fund, placing the indefinite situs tax on leased rail cars under the jurisdiction of the office of the governor, where it was supplied to commuter railroads in Indiana. In 1980 the Electric Rail Service Fund was established, stipulating that the taxes paid by the South Shore Railroad in the counties in which it operated would be distributed by the governor's office to electric railroads in Indiana. NICTD was the exclusive beneficiary of both sources of funds from the state.

The strategic plan was delivered in June 1982, and NICTD immediately began to work with Governor Robert Orr and the General Assembly to empower NICTD to purchase the railroad. After a strong lobbying effort in the General Assembly, NICTD received the powers it sought in April of 1984. Earlier, NICTD had begun talks with the Urban Mass Transportation Administration for a grant of capital to secure the purchase of the South Shore. The federal procedures were expected to take about a year to complete before any funds would be available.

The Dark Days of Venango River

Hardly had the smiles of victory from the power to purchase the South Shore begun to fade than a new player arrived on the scene. The Venango River Corporation (VRC) was made up of five individuals, four of whom had been employed by the Atchison, Topeka & Santa Fe Railroad. VRC arranged a highly leveraged loan from Chicago banks and purchased the railroad, securing control from the Chessie on September 28, 1984.

Almost immediately NICTD became disturbed. Under the contractual agreement with the Chessie System, which continued under VRC ownership of the South Shore, NICTD agreed to pay all passenger-related expenses that were not covered by fares. The expenses began to rise substantially throughout 1985 and seriously threatened NICTD's ability to continue to subsidize the operating costs of the South Shore and sustain the passenger service. In the fall of 1985 the situation was sufficiently desperate that the NICTD board and staff decided to approach the 1986 General Assembly. NICTD sought from the General Assembly powers to tax locally to continue to support the service. Instead of such powers, the 1986 General Assembly created a legislative study commission to investigate the situation and report back to the governor and the General Assembly on what should be done. The outcome of the study, which was carried out in the summer and fall of 1986, was authorization of a $2.67 million loan. As directed, NICTD sought the money from the Indiana Board of Depositories. The Board of Depositories is not unlike the Federal Deposit Insurance Corporation, except that in Indiana it is for Indiana banking institutions that hold public money of Indiana governmental institutions. From the Depression days, such banks had placed funds in an account that acted as insurance in case a bank should fail and jeopardize the money of a city, county, or the state. The Board of Depositories had loaned funds to Chrysler and to certain other private firms during the 1980s, so a loan from the fund was not unusual.

The legislative study commission also recommended that the NICTD board be reorganized. Under the original legislation, the governor named one representative for the State of Indiana, and the commissioners of Lake, Porter, La Porte, and St. Joseph counties named a person to the board, often one of the commissioners. Under the changes that eventually became law in 1987, the four county councils were also to name a NICTD board representative, bringing the total number of board members to nine.

Relations with the Venango-owned South Shore continued to deteriorate in 1986 and grew even worse in 1987 as operating costs continued to skyrocket. NICTD board and management speculation as to why the South Shore was hiring more people than seemed necessary for a 90-mile railroad was vindicated when the Venango River Corporation bought the Chicago, Missouri & Western Railroad in April 1987. The increase in personnel and other VRC activities had been for the purpose of expanding VRC holdings from a single short line to a small railroad empire. The CM&W ran from Joliet, Illinois to St. Louis with a long additional main line from Roodhouse, Illinois to Kansas City, Missouri.

The CM&W did not fare well, and by April 1988 it was bankrupt. This proved to be a serious threat to the South Shore, which, although a separate company under the aegis of Venango, had guaranteed $4 million of the loan that Venango received to purchase the CM&W. Moreover, there was some $4 million in accounts receivable for work done by the South Shore for the CM&W. VRC was in financial difficulty; it had borrowed heavily and was still very highly leveraged. It rolled over the loan originally obtained to purchase the South Shore and, with Citicorp as the major lender, borrowed in the neighborhood of $130 million to purchase the CM&W and make capital improvements on that railroad. The large amount of money borrowed and the interest rates on the loan soon brought VRC enormous problems.

Buying the South Shore

By mid-1988 it was clear that the constant friction with the VRC was a growing burden to NICTD management and staff. Worse yet, audits showed that VRC had overcharged NICTD by more than $1 million in 1986 and 1987, and preliminary audits showed the situation in 1988 was much the same. The South

Shore was technically bankrupt. It owed other railroads $3 million; to pay interest on its loans, it had stopped paying interline settlements on freight shipments. At one point, Union Pacific went to court and froze the South Shore's assets. Something had to be done, so the NICTD board and management resolved to move decisively to purchase the South Shore Railroad. As originally planned in 1983, federal funds would be sought with state matching funds to help. In the meantime, NICTD had managed to stash away some funds, thanks to the sale of depreciation on its new cars under the Safe Harbor leasing arrangements made possible in the early 1980s under the Urban Mass Transportation Act of 1964, as amended.

In the fall of 1988 the Anacostia & Pacific Corporation contacted NICTD to see whether an arrangement could be worked out for joint purchase of the railroad. Other operators or financiers of short-line railroads also contacted NICTD. The private firms were interested in the South Shore freight service, which they thought to be potentially quite lucrative, but uninterested in a passenger service that would have to be subsidized. The idea was to have NICTD operate the passenger service while a private rail company managed the freight service.

On October 18, 1988, the South Shore management petitioned the Interstate Commerce Commission to discontinue passenger service, contending that it operated at a loss because NICTD refused to pay its rightful costs. Citicorp, taking a dim view of the prowess of Venango management after VRC defaulted on a loan payment on October 31, 1988, pushed Venango out and in its place installed the Stratford Partners to control the railroad and take over day-to-day management. In a surprise decision in late November, the ICC granted the South Shore permission to discontinue passenger service unless NICTD and the railroad could agree on a basis for continuation.

At the same time these troubling events were unfolding, the South Shore service and NICTD were enjoying high levels of patronage. At its low point in 1976, South Shore had only 1.3 million passengers; by 1981 it was only carrying about 1.6 million riders. However, the improved service and reliability, thanks to the new rolling stock, shop facilities, and power distribution system, had increased patronage to 3 million in 1988 and 3.6 million passengers in 1989. The closure of the Dan Ryan Expressway in Chicago for repairs had helped stimulate this traffic, but it had been growing rapidly even before work on the Dan Ryan took place. On the positive side, as noted earlier, NICTD studies indicated that the value of the wages and salaries earned by people using the South Shore commuter service was approximately $120 million a year. Clearly, the NICTD/South Shore commuter service was an excellent deal for Indiana.

The shaky condition of the South Shore continued until April 7, 1989, when it declared bankruptcy. A month later Leroy Inskeep, a Chicago attorney, was named trustee in bankruptcy, and NICTD immediately began to negotiate with the trustee for the continuation of the passenger service. From the start of 1989, NICTD had worked with the South Shore and arrived at an agreement that continued the service on virtually a month-to-month basis.

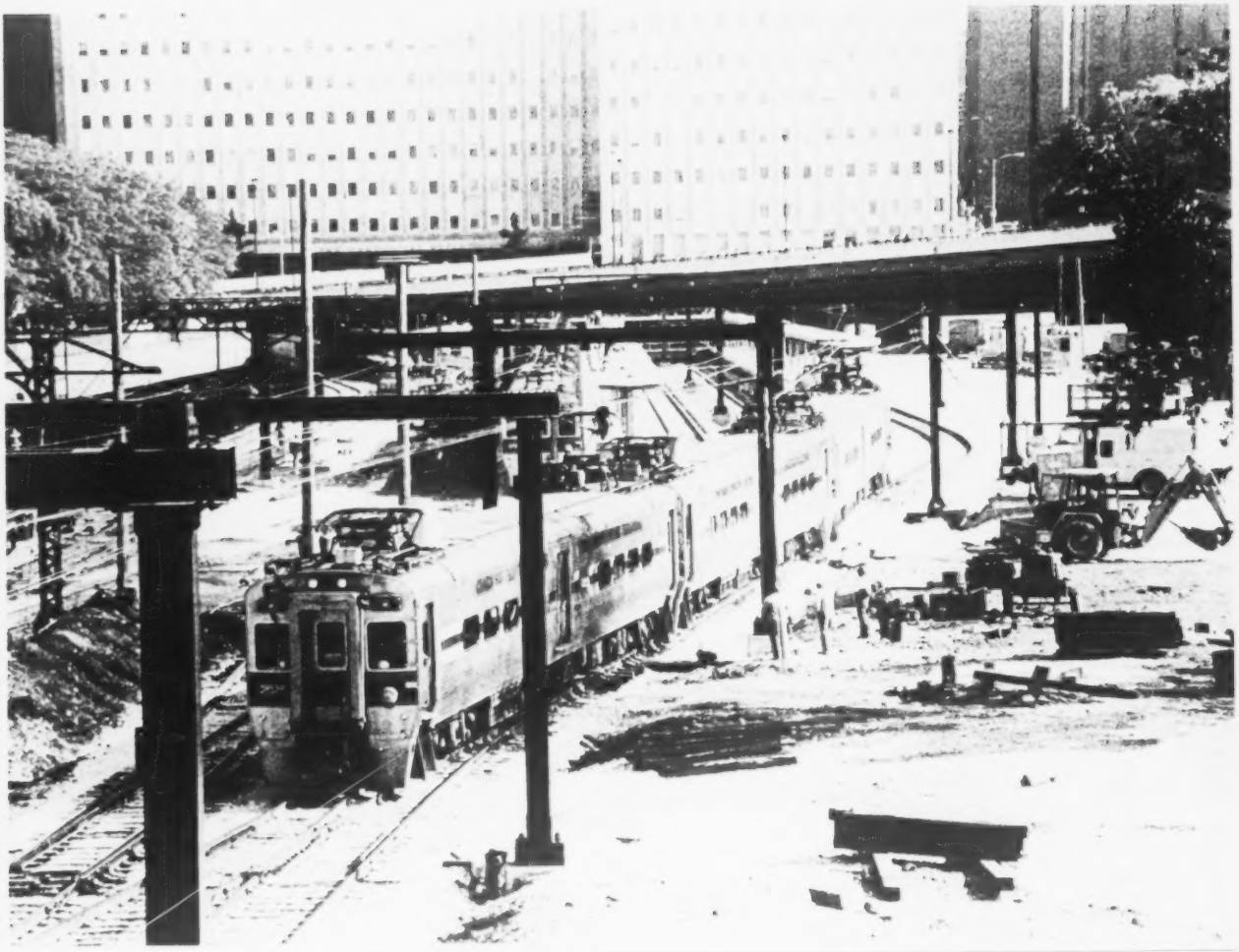
Meanwhile, in early 1989 negotiations with the Anacostia & Pacific commenced in earnest. The bargaining, now even more complicated because it included the bankruptcy trustee and the bankruptcy judge, was aimed at putting together a package that would satisfy the judge and eventually yield the railroad to NICTD. Under the proposal finally worked out, the A&P would buy the railroad and NICTD would have an option to purchase the line within three years. A&P would operate all freight, while NICTD would operate the passenger service. As part of the package, A&P would bid $34.6 million for the bankrupt South Shore. Of this, approximately $27 million would be in cash and the remainder would be in the acceptance of South Shore liabilities.

After months of intense and dedicated negotiation by NICTD management, Federal Bankruptcy Judge John D. Schwartz accepted the NICTD/A&P offer on December 11, 1989. All-night sessions of agreement signing continued and, finally, on December 30, 1989, the South Shore operations fell into the hands of NICTD.

NICTD as Operator

The first sign of the NICTD takeover of South Shore passenger service was a vast increase in the number of NICTD employees. NICTD staff, never totaling more than 11 full-time people, suddenly shot up to 230. The agreement with A&P included NICTD responsibility for dispatching all trains and for all maintenance of way, as well as NICTD direct operation of the passenger service. At the time of signing the final agreements, NICTD put slightly under $4 million in an escrow account to act as either a match for a federal grant or as a down payment if a federal grant was not received. For that sum, NICTD received ownership of the shop facilities at Michigan City, all passenger facilities, and the catenary portion of the power distribution system. (NICTD already owned all of the electrical substations and new power distribution cables along the line.) NICTD's aims were to improve the management substantially, enhance the South Shore service over time, and exercise strong cost control.

NICTD already exerted a strong presence on the South Shore and northern Indiana. The new cars were the most visible evidence of NICTD's efforts. Forty-four new cars were purchased; they began to arrive in



At the Randolph Street Station

1981, and by Thanksgiving of 1982 all South Shore trains in operation were new cars. Three cars were lost from the fleet due to wrecks, badly limiting the passenger capacity. Since 1985, NICTD has leased a diesel-powered train from the RTA to augment South Shore service with a daily round trip between Michigan City and Randolph Street Station.

In the 1980s NICTD began improvements on the South Shore property, primarily through parking lot and station refinements. New platforms were installed in the refurbished Randolph Street Station in downtown Chicago over Memorial Day 1988. A new station/office building was built at Dune Park (Indiana 49 and U.S. Highway 12) in Porter County. Plans were also made for a new terminal in South Bend to be located at the Michiana Regional Airport.

Major parking lot improvements were made at East Chicago in 1988 and 1989. Additional parking space was added at Dune Park, and property adjacent to the Hammond Station was acquired to expand parking. Improved platforms and a shelter were installed at the Michigan City Shops Station. The maintenance shop at Michigan City was expanded substantially and new lighting and heating installed, along with a new overhead crane, a new car washer, and other new machinery. Yard trackage was rearranged.

On the electrical side, NICTD acquired all nine substations (as mentioned earlier) and introduced the most modern equipment for converting high-voltage alternating current into 1500-volt direct current. Thirty miles of heavy-duty power distribution cable were installed, as was a computer-based power con-

trol system to operate the substations from the South Shore offices in Michigan City.

The Future

Looking ahead toward the year 2000, there are a number of things that NICTD must do to secure its role in transportation and as a major force in the economy and development of northwest Indiana. That economy was seriously threatened by the strong recession of 1981-82, when thousands of people in heavy industry lost their jobs. As the economy recovered, the attractiveness of northwest Indiana as a dwelling place for people working in the Chicago Loop also became apparent. NICTD conducted studies revealing that a significant number of riders were new to Indiana and had moved into the state because the South Shore commuter service provided a convenient link to good, high-paying jobs in Chicago.

Opportunities for expansion of service and increased support may come from the elimination by Amtrak of its one-round-trip-a-day commuter service between Valparaiso and Chicago. It is expected that Amtrak will petition to discontinue this service some time in 1990. NICTD is the logical operator, and will probably take steps to see the service continued and possibly expand it substantially over the next decade. This line holds high potential for eventual expansion of service because it is located in the most rapidly growing portions of Lake and Porter counties.

The West Lake Corridor is the name given to the rail line of the old Monon Railroad running south from Hammond toward Lowell, Indiana and then on to Louisville. Now owned by the Chessie System, a portion of this line in Hammond is threatened with abandonment. The area between Hammond and Lowell is experiencing significant population growth. At this writing, NICTD is working to lease the threatened trackage from the Chessie to preserve it, with the eventual aim of working with Hammond and other communities to begin a rail commuter service into Chicago probably after the middle of the 1990s.

NICTD has already purchased substantial amounts of land in the area of the Hammond station to improve parking, and plans are being developed to make important improvements at other stations. The problem, however, has been the lack of sufficient matching funds for a federal grant. NICTD had money enough to match the purchase of the railroad, or to buy additional cars to solve the problem of overcrowding and improve stations. But NICTD could not do both. Purchase of the railroad appeared to be a higher priority in order to stabilize the railroad and the passenger service.

The administration of Governor Evan Bayh provided an early Christmas present to northwest Indiana and NICTD on December 1, 1989. By means of a letter to NICTD from Indiana Budget Director Frank Sullivan, Governor Bayh promised that funds would be found to provide the match to purchase at least 14 additional rail commuter cars and make major station improvements at Hammond, East Chicago, and South Bend. Grant applications have already been filed with UMTA. Hammond will get a new station with high-level platforms. The East Chicago facility will receive major upgrading, including a new station and high-level platforms. Both stations will probably enjoy other enhancements. The South Bend terminal will be moved from its present poor location to the terminal building of the Michiana Regional Airport. This will make the Michiana facility one of the few true multi-modal facilities in the U.S.

NICTD has always been faced with enormous challenges. It has been able to survive under very difficult conditions because of its highly supportive board and a small but top-notch staff and management team. That team evolved from merely supporting the service and acting as a conduit for funds to effectively managing the commuter rail service.

The 1990s will prove to be perhaps even more challenging than the past, but the situation is now clearer. With strong efforts being made to gain approval of the federal capital grant, NICTD hopes to own the South Shore Railroad outright by the end of 1990. At that time, the A&P freight service will become a tenant of NICTD and the service of both carriers will be handled on a solid and safe railroad.

The people of northwest Indiana and of the whole state have already enjoyed significant benefits from the work of NICTD. Free from the bickering inherent in working under a contract with the railroad, NICTD management can now turn its attention to major long-term improvements in service.

Indiana and Federal Highway Dollars

Richard Michels

Research Assistant, Indiana Business Research Center

The U.S. Department of Transportation recently announced a new initiative to increase state participation in the financing of the nation's transportation infrastructure. Indiana receives less in total dollars than many of its neighbors. When examined in terms of population, income, registered vehicles, or road miles, however, this discrepancy is much smaller (see **Table 1** and **Figures 1** and **2**).

In 1988, Indiana sent nearly $320 million into the Federal Highway Trust Fund, while just over $270 million was apportioned back to Indiana (see **Table 2**). That is a "deficit" of almost $50 million. For each dollar sent to Washington, 85 cents was returned. Year-to-year variations in contributions and receipts are to be expected; in 1985 the Hoosier state received $1.02 for each dollar contributed to the fund. The 1985 receipts seem to have been an exception to the pattern, however. In the five-year period 1984-1988, Indiana was granted $1,362,708,000—or 88.22% of the dollars paid by businesses and individuals in the state to the federal government in highway taxes and fees. Since the inception of the program in July 1956, Indiana has had a shortfall of more than $652 million.

A more detailed breakdown of the allocation of funds for Indiana over the last four years is also found in Table 2. A larger-than-average percentage of Indiana's funds go toward the elimination of hazards at rail-highway crossings. However, a smaller-than-average percentage of the funds received by Indiana are allocated for bridge replacement and rehabilitation. The account entitled 85% Minimum Allocation Funds arises because each state is guaranteed to receive at least 85% of its estimated tax contributions paid into the fund.

The apportionment of federal highway dollars to the states is based on complex formulas designed to

Figure 1
Highway Funds Per Capita

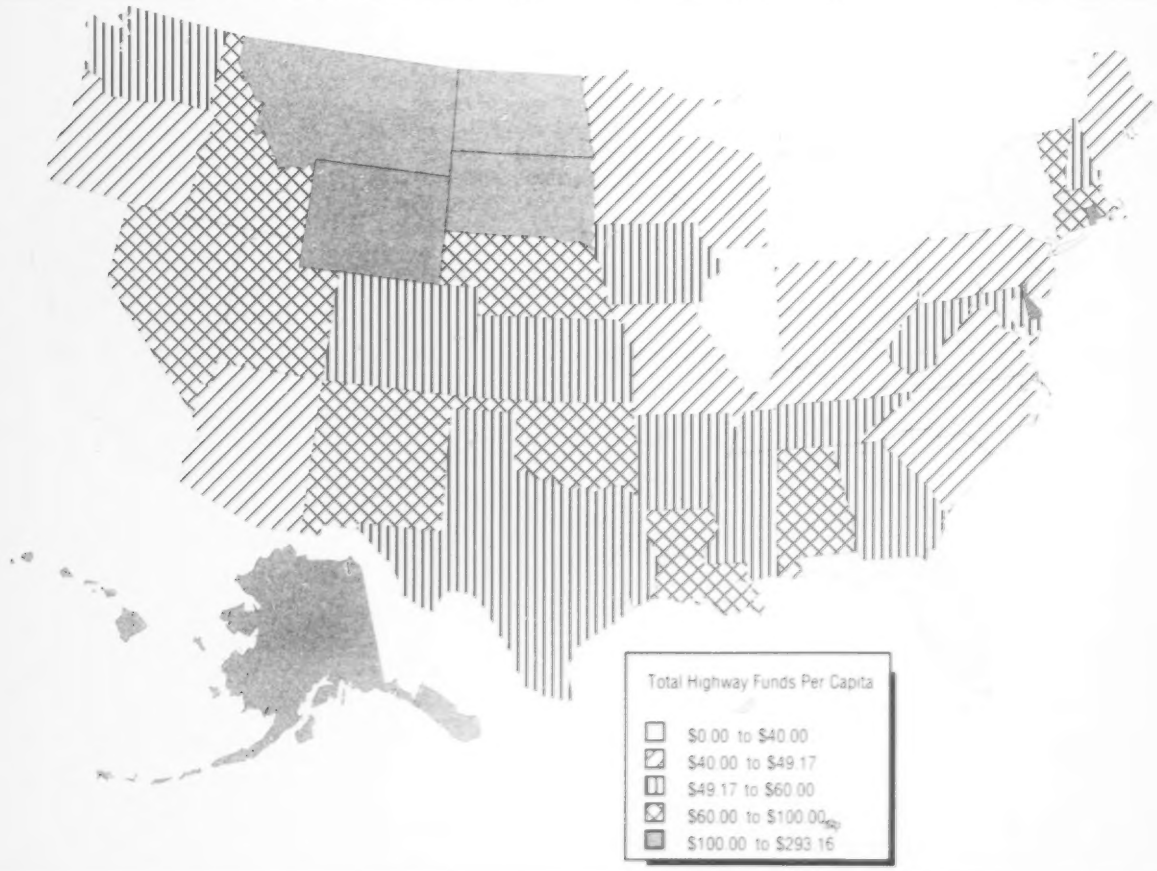


Table 1
Apportionment of Federal-Aid Highway and Safety Funds

	TOTAL FEDERAL-AID HIGHWAY FUNDS		TOTAL FUNDS PER REGISTERED VEHICLE		TOTAL FUNDS PER CAPITA INCOME		TOTAL FUNDS PER MILE		TOTAL FUNDS PER CAPITA	
STATE	*DATA (000 S)*	*1988 RANK*	*DATA*	*1988 RANK*	*DATA (000 S)*	*1988 RANK*	*DATA*	*1988 RANK*	*DATA*	*1988 RANK*
ALABAMA	$266,822	18	$68.75	26	$20.76	12	$2.95	24	$65.05	17
ALASKA	$153,616	28	$424.49	1	$8.05	39	$12.60	6	$293.16	1
ARIZONA	$145,001	29	$53.61	45	$9.69	31	$2.06	34	$41.56	43
ARKANSAS	$124,025	35	$86.91	17	$10.15	30	$1.61	42	$51.78	29
CALIFORNIA	$991,506	1	$46.47	49	$52.87	2	$6.10	10	$35.02	49
COLORADO	**$186,651**	**25**	**$63.85**	**35**	**$11.34**	**28**	**$2.42**	**31**	**$56.54**	**26**
CONNECTICUT	**$281,361**	**13**	**$106.10**	**11**	**$12.20**	**25**	**$14.21**	**5**	**$87.03**	**11**
D. OF COLUMBIA	**$85,108**	**43**	**$322.35**	**2**	**$3.98**	**47**	**$77.23**	**1**	**$137.94**	**3**
DELAWARE	**$50,129**	**51**	**$97.92**	**13**	**$2.84**	**50**	**$9.31**	**9**	**$75.95**	**13**
FLORIDA	**$436,333**	**7**	**$39.73**	**51**	**$26.28**	**7**	**$4.17**	**14**	**$35.37**	**48**
GEORGIA	$334,967	9	$64.46	34	$21.95	8	$3.12	22	$52.82	28
HAWAII	$139,329	32	$197.71	3	$8.32	38	$34.14	2	$126.89	5
IDAHO	$85,354	42	$90.78	15	$6.74	41	$1.41	46	$85.10	12
ILLINOIS	$373,007	8	$47.43	48	$21.22	10	$2.75	27	$32.12	51
INDIANA	$270,098	16	$64.78	33	$18.10	14	$2.95	25	$48.61	33
IOWA	**$167,117**	**26**	**$65.08**	**30**	**$11.40**	**27**	**$1.49**	**45**	**$58.97**	**23**
KANSAS	**$144,035**	**30**	**$65.18**	**29**	**$9.14**	**34**	**$1.08**	**50**	**$57.73**	**25**
KENTUCKY	**$164,841**	**27**	**$58.98**	**38**	**$12.86**	**23**	**$2.36**	**32**	**$44.23**	**39**
LOUISIANA	**$267,389**	**17**	**$91.02**	**14**	**$21.75**	**9**	**$4.58**	**12**	**$60.66**	**20**
MAINE	**$58,106**	**48**	**$61.73**	**36**	**$3.85**	**48**	**$2.65**	**30**	**$48.22**	**35**
MARYLAND	$271,475	15	$78.27	20	$13.93	21	$9.62	7	$58.74	24
MASSACHUSETTS	$549,971	4	$144.04	7	$26.42	6	$16.27	4	$93.39	10
MICHIGAN	$322,430	10	$45.15	50	$19.48	13	$2.73	28	$34.90	50
MINNESOTA	$208,800	22	$65.04	31	$12.52	24	$1.61	41	$48.48	34
MISSISSIPPI	$133,729	33	$74.84	23	$12.03	26	$1.85	38	$51.04	30
MISSOURI	**$246,469**	**20**	**$64.96**	**32**	**$15.95**	**17**	**$2.06**	**35**	**$47.94**	**36**
MONTANA	**$107,846**	**38**	**$149.26**	**6**	**$8.38**	**36**	**$1.51**	**44**	**$133.97**	**4**
NEBRASKA	**$101,299**	**41**	**$76.27**	**22**	**$6.86**	**40**	**$1.10**	**49**	**$63.23**	**18**
NEVADA	**$72,021**	**47**	**$89.10**	**16**	**$4.11**	**46**	**$1.61**	**43**	**$68.33**	**16**
NEW HAMPSHIRE	**$54,458**	**49**	**$58.68**	**40**	**$2.80**	**51**	**$3.70**	**18**	**$50.19**	**31**
NEW JERSEY	$321,213	11	$55.98	42	$14.60	19	$9.39	8	$41.60	42
NEW MEXICO	$104,259	39	$82.32	19	$8.35	37	$1.93	37	$69.18	14
NEW YORK	$649,719	3	$66.04	28	$33.66	3	$5.87	11	$36.28	47
NORTH CAROLINA	$300,933	12	$59.92	37	$21.04	11	$3.21	21	$46.38	38
NORTH DAKOTA	$73,689	46	$112.49	10	$5.74	45	$0.85	51	$110.48	7
OHIO	**$441,082**	**6**	**$51.22**	**47**	**$28.39**	**5**	**$3.89**	**15**	**$40.63**	**46**
OKLAHOMA	**$199,481**	**24**	**$78.10**	**21**	**$14.97**	**18**	**$1.79**	**40**	**$61.53**	**19**
OREGON	**$128,427**	**34**	**$55.46**	**43**	**$8.63**	**35**	**$1.37**	**47**	**$46.41**	**37**
PENNSYLVANIA	**$513,570**	**5**	**$66.13**	**27**	**$31.64**	**4**	**$4.42**	**13**	**$42.79**	**40**
RHODE ISLAND	**$103,621**	**40**	**$154.47**	**5**	**$6.13**	**43**	**$17.73**	**3**	**$104.35**	**8**
SOUTH CAROLINA	$142,011	31	$58.83	39	$10.99	29	$2.23	33	$40.93	45
SOUTH DAKOTA	$82,094	44	$118.52	9	$6.44	42	$1.12	48	$115.14	6
TENNESSEE	$242,614	21	$57.42	41	$17.49	15	$2.90	26	$49.56	32
TEXAS	$894,038	2	$72.06	24	$61.29	1	$2.98	23	$53.09	27
UTAH	$115,915	36	$99.98	12	$9.51	33	$2.70	29	$68.59	15
VERMONT	**$54,017**	**50**	**$119.28**	**8**	**$3.53**	**49**	**$3.83**	**16**	**$96.98**	**9**
VIRGINIA	**$256,363**	**19**	**$54.89**	**44**	**$14.50**	**20**	**$3.83**	**17**	**$42.62**	**41**
WASHINGTON	**$276,054**	**14**	**$71.01**	**25**	**$16.76**	**16**	**$3.39**	**19**	**$59.39**	**22**
WEST VIRGINIA	**$111,602**	**37**	**$86.74**	**18**	**$9.51**	**32**	**$3.23**	**20**	**$59.49**	**21**
WISCONSIN	**$201,051**	**23**	**$51.54**	**46**	**$12.95**	**22**	**$1.83**	**39**	**$41.41**	**44**
WYOMING	$81,408	45	$168.90	4	$5.98	44	$2.01	36	$169.95	2
UNITED STATES	$12,086,439		$65.55		$14.86		$3.12		$49.17	

allocate the funds where they are needed on a supposedly fair and equitable basis. The federal-aid highway program is financed from the proceeds of motor fuel and other highway-related excise taxes. The highway funds are administered as a grant-in-aid program and apportioned to the states in accordance with formulas that give weight to population, area, mileage, and relative costs (needs). The funds are used for capital outlays, maintenance, administration, highway police and safety, interest on debt, debt retirement, and intergovernmental payments.

Naturally, each state would like to be in a "surplus" position. This would be an arithmetic impossibility and would make no sense for a national program. A federal program is expected to be redistributional in nature—moving funds from the wealthy to the poor, from the adequately served to the needy, or from the sparsely populated to the densely packed areas (or the reverse). What principle seems to be operative in the federal-aid highway program?

The system appears to clearly favor the small states. An examination of the total funds per capita data indicates that there is a close inverse relationship between the funds received by a state and its population. Two population trends seem to be at work here. First, funds are redistributed from the more heavily populated to the less heavily populated states. Second, funds are redistributed from urban states to rural states. This results in states such as Alaska, Wyoming, and Montana receiving much more in funds per capita than more populated states with large urban areas, such as Illinois, Michigan, and California.

There does not appear to be a strong correlation between the apportionment of funds and per capita

Figure 2
Highway Funds Per Capita Income

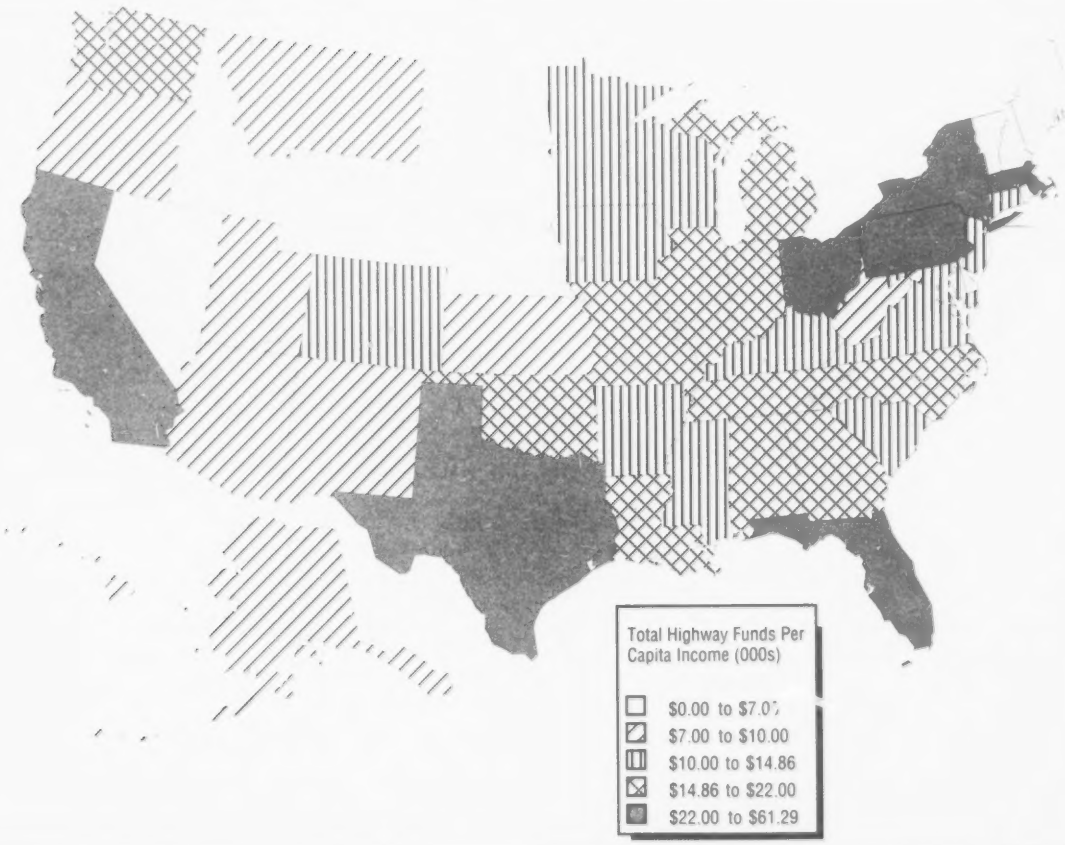


Table 2
Apportionment of Federal-Aid Highway and Safety Funds ($000)

Data Description	Year 1988	Percent U.S.	Percent Total	Year 1987	Percent U.S.	Percent Total	Year 1986	Percent U.S.	Percent Total	Year 1985	Percent U.S.	Percent Total
*Total Federal-Aid Highway Funds**	$270,098	2.2	100.00	$253,889	2.1	100.00	$281,102	2.0	100.00	$322,823	2.3	100.00
Metropolitan Planning	835	1.7	0.31	822	1.7	0.32	922	1.7	0.33	921	1.7	0.29
Total Federal-Aid Systems Funds*	151,367	1.7	56.04	155,275	1.7	61.16	234,146	2.0	83.30	268,216	2.2	83.08
Consolidated Primary	52,531	2.3	19.45	52,531	2.3	20.69	54,245	2.3	19.30	52,473	2.3	16.25
Rural Secondary	13,837	2.3	5.12	13,837	2.3	5.45	14,303	2.3	5.09	15,104	2.3	4.68
Urban System	14,534	2.0	5.38	14,534	2.0	5.72	14,988	2.0	5.33	15,661	2.0	4.85
Interstate	13,954	0.5	5.17	17,862	0.6	7.04	17,418	0.5	6.20	18,201	0.5	5.64
Interstate Resurfacing	56,511	2.2	20.92	56,511	2.2	22.26	66,472	2.2	23.65	62,711	2.2	19.43
Interstate Highway Substitute	3,769	0.6	1.40	3,807	0.7	1.50	5,213	1.0	1.85	7,898	1.0	2.45
85% Minimum Allocation Funds	77,349	9.6	28.64	58,008	8.0	22.85	61,507	9.9	21.88	96,168	10.0	29.79
Hazard Elimination	3,861	2.3	1.43	3,864	2.3	1.52	4,388	2.3	1.56	4,591	2.3	1.42
Elimination of Hazards at Rail-Highway Crossings	4,874	3.1	1.80	5,086	3.2	2.00	5,983	3.3	2.13	6,589	3.5	2.04
Bridge Replacement and Rehabilitation	25,135	1.8	9.31	24,121	1.7	9.50	32,947	1.9	11.72	39,776	2.6	12.32
Highway Safety Programs	2,908	2.3	1.08	2,906	2.3	1.14	2,716	2.3	0.97	2,730	2.3	0.85
Contributions to Fund	319,359			309,633			331,477			315,654		
Percent Returned	85%			82%			85%			102%		
Cumulated Excess Contributions Since 7/1/56: $652,560												

* *Detail may not add to total*

income. Some type of redistribution of funds from the wealthy to the poor states does seem to be at work, however. This is brought out by the fact that Connecticut and Mississippi are ranked 25th and 26th in apportionment of funds on a per capita income basis but are vastly different in per capita income.

Total funds per registered vehicle is so strongly correlated with total funds per capita that similar conclusions can be reached. Smaller states, with fewer registered vehicles, are favored over the larger states that contain a high number of registered vehicles. One difference does exist, however. Populations in large urban areas with highly developed public transportation systems tend to have fewer vehicles. Thus states with large urban areas should fare better here than when examined on a per capita basis. This is evident from such states as New York and Illinois, which have larger urban areas but are ranked higher on funds per registered vehicle than on funds per capita.

Dollars are generally redistributed from the states with more road mileage to states with less road mileage. Texas, for example, is ranked first in total mileage and second in total funds but falls to 22nd in total funds per mile. The states smaller in area benefit considerably when examined in this manner, whereas the larger states west of the Mississippi River, particularly those in the Great Plains, receive very little on a per mile basis.

Indiana ranks 32nd in apportionment of funds on a per capita basis. This results from the fact that the Hoosier state is above average in population and also has some large urban areas. The fact that Indiana is ranked 29th in per capita income but 14th in total funds per capita income seems to imply that funds are being allocated to Indiana from other states. Since Indiana is above average in both registered vehicles and road mileage, its ranking is not as favorable, indicating an allocation of funds away from the state.

The current apportionment of highway funds means Indiana is helping to fund the Department of Transportation's highway projects in the rest of the country. The Department's federal-aid highway program does appear to be redistributional in nature. In absolute terms the large states receive the most funds, but in relative terms the small states are definitely favored. Although no single factor is specifically at work, the general method is to move funds from those with to those without. The 85% rule, however, keeps total funding more or less proportionate to total population. The tendency to redistribute monies from the more populous to the less populous states may be necessary to maintain the linkages between these states. An effective highway system between Illinois and California requires quality roads in Nebraska—which that state, on its own, might not sustain.

Indiana Business Review

Indiana Business Research Center
Graduate School of Business
Indiana University
Bloomington, IN 47405

May 1990

Nonprofit Organization
U.S. Postage
PAID
Bloomington, Indiana
Permit No. 2

00899 8809
Cheryl Waldman
Congressional Info Serv.
4520 East West Highway
Bethesda MD 20814

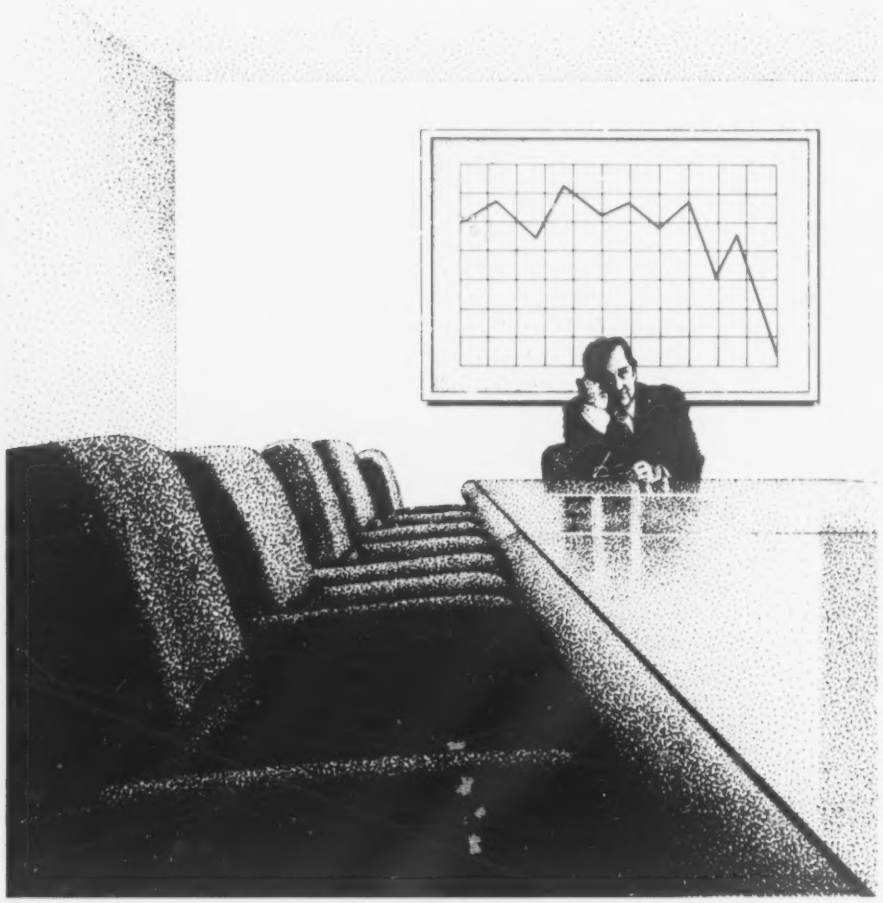
U2160-1

INDIANA BUSINESS REVIEW / Indiana University:
Graduate School of Business
4-6 issues per year. July 1990 (P)
Compilation © 1990 Congressional Information Service

Fiche 3
9/90

SRI:90

Indiana Business Review



A publication of the Indiana Business Research Center, Indiana University School of Business

The 1990 Midyear Outlook

July 1990

Contents

1 Bruce L. Jaffee
Midyear Review of the Outlook for 1990

1 R. Jeffery Green
Consumer Expenditures

2 Lawrence S. Davidson
Nonresidential Investment

2 George W. Wilson
Government Monetary and Fiscal Policy, Unemployment, Inflation, and Interest Rates

3 Jürgen von Hagen
The International Economy

4 Donald L. Tuttle
Interest Rates and Financial Markets

5 George H. Lentz
Housing

6 Morton J. Marcus
A Closer Look at Indiana's Economy

9 Robert Kirk
Indianapolis

10 Leslie P. Singer
Northwest Indiana

12 Thomas L. Guthrie
Fort Wayne

12 Patrick M. Rooney
Columbus

14 Marvin Fischbaum
Terre Haute

15 Maurice Tsai
Evansville

17 Dilip Pendse
Kokomo

18 John E. Peck
South Bend/Mishawaka-Elkhart/Goshen

20 Gerald J. Lynch
Lafayette

20 Ashton I. Veramallay
Richmond-Connersville-New Castle

21 Fay Ross Greckel
Jeffersonville-New Albany (Louisville Area)

Indiana Business Review
Volume 65, Number 2
July 1990

Published six times each year by the Indiana Business Research Center, Graduate School of Business, Indiana University.

Jack R. Wentworth, Dean; Morton J. Marcus, Director and Editor; Brian K. Burton, Managing Editor; Melanie Kearns, Senior Editorial Assistant; Melva Needham, Dorothy Fraker, Circulation; Jo Browning, Office Manager. Printed by Indiana University Printing Services.

Unless otherwise noted, information appearing in the *Indiana Business Review* is derived from material obtained by the Indiana Business Research Center for instruction in the School of Business and for studies published by the Center. Subscriptions to the *Indiana Business Review* are available to Indiana residents without charge.

Midyear Review of the Outlook for 1990

Bruce L. Jaffee

Professor and Chairperson, Business Economics and Public Policy, Indiana University School of Business

Last fall the forecast team predicted a slow growth year for 1990, with only a 2% real growth in GNP but with no recession. Fourth quarter 1989 and first quarter 1990 were expected to be especially weak. While the economy has not performed smoothly or consistently in the last six months, the broad outlines of the forecast appear to be on target. Real GNP grew at a 1.1% annual rate in 1989's fourth quarter, and the most recent data indicate first quarter real growth of 1.3%. Both these anemic growth rates are less than half the levels of the previous year. Unemployment rates have moved upward, domestic Big Three automobile sales are down significantly, businesses and consumers have become more cautious about spending on investment goods and big-ticket items, and there is little optimism about improvements in our federal trade and budget deficits.

Yet there are some signs of optimism. Inventory levels, which grew at undesirable rates in the beginning of the year, have now become more moderate. Interest rates have also moderated after rising unexpectedly in the first quarter, although real rates are still quite high. Inflation rates, which were boosted by weather- and energy-related factors in the beginning of the year, now appear to be headed toward a 4% annual rate for the rest of the year.

Many of the economic surprises in the last six months have come in the international sphere. German unification and economic restructuring in Central Europe bode well for domestic and world economic growth. However, most of the effects on the U.S. will occur at the end of this year at the earliest and will be important factors to consider in later years.

The collapse of the Japanese stock market reflects political instability, monetary problems, and personal and financial scandals more than weaknesses in that country's real economy. The declines in the value of the yen and limited real progress in trade barrier negotiations between the U.S. and Japan suggest little substantive improvement will be made in reducing the real bilateral trade deficit.

The cutbacks in U.S. defense spending are likely to be significant, but not until the 1991 fiscal year. Even then, the impacts are likely to be relatively small as adjustments are made to alternative uses of resources except in specific areas of the country, such as Texas, New York, and parts of New England.

In summary, we continue to hold to our forecast of no recession, slow growth, and reasonable balance among all the major sectors of the economy.

Table 1
Forecast and Actual Values, 4th Quarter 1989 through 4th Quarter 1990
(Billions of 1982 dollars)

	4th Quarter 1989	*1st Quarter 1990*	*2nd Quarter 1990*	*3rd Quarter 1990*	*4th Quarter 1990*
Total Real Consumer Expenditures					
November Forecast	2694.0	2710.0	2725.0	2740.0	2755.0
Actual	2693.7	2710.1	n/a	n/a	n/a
Percent Change (AR)					
November Forecast	0.4	2.4	2.2	2.2	2.2
Actual	0.5	2.5	n/a	n/a	n/a

Consumer Expenditures

R. Jeffery Green

Professor of Economics, Indiana University

Last winter our forecast for real consumer expenditures was one of weak growth in fourth quarter 1989 followed by moderate growth through 1990. So far, that forecast is right on track. **Table 1** shows the forecast for total real consumer expenditures made last winter together with the actual results for fourth quarter 1989 and first quarter 1990. Because the forecast errors in our November forecast are so small for fourth quarter 1989 and first quarter 1990, our forecast for the remainder of 1990 for total real consumption remains the same as last November. As in November, this forecast is consistent with a fairly constant savings rate of about 5.5% and growth in real disposable personal income of just over 2% at an annual rate.

Despite the lack of revisions in our overall forecast for consumer spending, a number of developments in the last six months warrant discussion. The first is the continued volatility in automobile expenditures. Real purchases of new autos rose at a 50% annual rate in third quarter 1989, spurred by dealer incentives. In fourth quarter 1989, real new auto purchases fell at a 59% rate as dealer incentives were terminated. Renewed dealer incentives produced a 58% annual rate increase in new auto purchases in first quarter 1990, and partial data from early in the second quarter indicate that another decline, though smaller, may be under way. Comparable swings in dealer inventories and auto company profits also occurred. Consumers now apparently wait for inventories to reach excessive levels and force dealers to offer incentives before buying. It looks like volatility in auto purchases will continue for some time.

Consumer purchases of clothing and shoes have been very weak over the past six months, declining at an average annual rate of 2.9% from third quarter 1989 through first quarter 1990. A major reason for this decline is the rapid rise—9.1% at an annual rate—in clothing prices over the same period. The depreciation of the dollar may have played a role in

these price increases because a large percentage of clothing and shoes are imported. As a result, there has been a major decline in imports of clothing and shoes in first quarter 1990.

Consumption of energy products is often volatile and has been especially so over the last several months. Very cold weather in December 1989 raised the consumption of fuel oil, electricity, and natural gas. Warmer than usual weather in January and February 1990 had the opposite effect. The result was to make consumer spending larger than it otherwise would have been in fourth quarter 1989 and smaller than it would have been in first quarter 1990. Real consumption of gasoline in first quarter 1990 fell to the lowest level since the end of 1985 as gasoline prices rose sharply.

The recent volatility in several consumption categories suggests that, although our forecast of total real consumer expenditures is for a smooth increase of about 2.2% for the rest of 1990, the total will mask swings in many components as they adjust to short-run changes in prices and weather-related shocks.

Nonresidential Investment

Lawrence S. Davidson

Professor of Business Economics and Public Policy, Indiana University School of Business

Nonresidential investment includes business fixed investment (BFI) and inventory change. After leading the country's economic growth since 1982, mostly through strong equipment sales, BFI began to slow in 1989. Last December we predicted a continuation of this sluggish growth in 1990, so when coupled with modest inventory accumulation, nonresidential investment would grow by around 4%.

Since that writing we have received data on fourth quarter 1989 and first quarter 1990. The level of BFI fell from its third quarter value and then picked up again in first quarter 1990, growing by more than 4% per annum during the first quarter. Inventories piled up in fourth quarter 1989 and then fell dramatically, to a seasonally adjusted accumulation of only $2.6 billion in first quarter 1990. The increases in BFI, as throughout most of the recovery, have largely come through the equipment sector. Growth in business structures continues to be weak. The upshot is that while first quarter numbers were somewhat rosy, the slow growth scenario envisioned last December is hardly changed by recent events. In addition, the volatile weather of early 1990 played havoc with construction activity, so the numbers for the first quarter offer at best an opaque window for future prognostication.

If anything, there may be reason to pare down our 4% forecast a notch. First, the auto industry has problems. First quarter profits for the Big Three showed big reductions. The inventory numbers for the first quarter show how the industry reacted—by producing less. Although the inventory numbers may return to normal by midyear, we predict caution on the production side. And less output means less demand for tools and equipment. Second, cost factors do not bode well for more investment spending. Economy-wide wage and unit labor costs accelerated in 1989, growing at a rate of about 4.5%. Then unit labor costs rose another 4.9% at an annual rate in first quarter 1990. Demand for industrial goods is climbing rapidly and there is a growing potential for price increases from this sector. These rising costs of labor and materials may lead to a more widespread profit and liquidity squeeze as the year progresses.

Finally, macroeconomic policy continues to send warning signals to managers. Interest rates crept up until the second quarter even though the Fed has allowed M2 to grow at the top of its range for almost a year. With inflation not subsiding, this leaves less doubt about the future course of interest rates. The government seems hamstrung by politics, but business can't help but worry a little about which taxes will be raised as part of the new fiscal package. And as the savings and loan bailout numbers get scarier, the wait-and-see attitude about plant and equipment spending may be strengthened. Taken together, these recent events suggest that we revise our previous prediction for nonresidential investment downward. We expect no higher than a 3% rate of growth.

Government Monetary and Fiscal Policy, Unemployment, Inflation, and Interest Rates

George W. Wilson

Distinguished Professor of Business Economics and Public Policy and Professor of Economics, Indiana University

As noted here last December, the absence of a sensible fiscal policy won't make much difference for the real economy during 1990. The most recent bout of deficit mania, including discussions between the White House and Congressional leaders in May, probably won't amount to much either, though one hopes that sooner or later a real policy reflecting legitimate priorities will be forthcoming. The S&L bailouts have

put more pressure on the participants to "do something" about the deficit, but in itself the bailout is an income transfer whose real effects are not especially consequential. The real damage to the economy has already been done in the form of wasted and misdirected investment in construction. Furthermore, attempts are now going forward to make the S&L transfer payments exempt from GRH deficit calculations. So much for the relevance of the size and meaning of the "official" deficit! Politically the deficit issues, from "read-my-lips" nonsense to fussing about which additional taxes to raise, which party will get the blame, and how much further to cut military spending, will be very important. Fortunately for the economy, these are mostly smoke, although they will restrain productive expenditures in many needed areas and create more anxiety and pessimism throughout the system than is necessary. However, we've seen it all before.

Monetary policy remains poised to prevent any further inflationary outbreaks following unacceptably high first quarter rates, which were largely weather related. Further inflation rates promise to be far lower over the rest of the year because the unemployment rate is up to 5.4% (the highest in more than a year), overall real growth of spending remains well below the system's capacity, industrial raw materials prices are far below last year's levels, and the higher value of the dollar has reduced import price increases, to mention only some of the more obvious deflationary pressures. The slow turnaround in real output growth, apparent from more recent data on factory orders and leading indicators, is not expected to sustain inflation rates already experienced during the first quarter. The Fed should resume a policy of moderate ease to encourage the tepid turnaround and prevent a recession.

The revolutionary events in Eastern Europe and the ending of the Cold War in 1989 will translate into demand for U.S. exports as the nations seek to modernize their industries, improve infrastructure, clean up the environmental disasters left by an unprincipled industrialization process, and otherwise struggle to achieve sustainable growth rates well above population growth. The detente dividend is also real and substantial. Not much stimulus to the U.S. economy will be felt by year's end, but many domestic industries will be gearing up before that time. The investment needs for Eastern Europe and the Soviet Union will be enormous over the next decade, and the U.S. will provide a substantial share. But for the rest of 1990, additional demands from this source will be meager. Growth rates of the other GNP components are envisaged to be small enough to average barely 2% for the year as a whole, as previously forecast.

Unemployment rates may rise even higher, partly in response to reductions in military outlays and personnel needs, but they should end up averaging about 5.5% for all of 1990. Interest rates should fall slightly in the next several months, depending of course upon inflation expectations (already down) and Fed policy (always vigilant), then drift up modestly.

It thus seems that in macroeconomic terms, the economy should be rather well positioned to reach a higher growth plateau. This will be triggered by a more buoyant world economy and more substantial investments and technological improvements as U.S. business and government respond to the continuing economic threat of Japan, the Asian "gang of four," a resurgent Western and Eastern Europe, and a seachange in the world investment climate that will progressively substitute economic competition for military in most areas. But this is a scenario for another occasion.

The International Economy

Jürgen von Hagen

Assistant Professor of Business Economics and Public Policy, Indiana University School of Business

Since our last forecast, the international economy has been shaped by two dramatic, unforeseen developments, both spurred by political change. The first is the revolutionary change in the political and economic systems of Central Europe, especially in East Germany. The second is the financial crisis currently shaking Japan's business sector.

The political changes in Central Europe have started a process of modernization and liberalization in these countries that is necessary to revitalize the economies after four decades of socialist mismanagement. Only as Western businesses have started to consider investment in these countries as a promising alternative have the size and severity of their economic problems become clear: chronic pollution, outdated and obsolete capital stocks, and a lack of necessary infrastructure. The need for capital, both private and public, is therefore immense. However, as the political risks appear to become more tolerable, investment opportunities also promise good profitability. The economies' biggest asset is probably their relatively well-educated work force.

With German monetary union a reality, and with a virtual certainty of German political unification, East and West Germany are in key strategic positions. German monetary union went into effect on July 1, following agreement on an exchange rate of 1:1 for a limited amount of East German marks for West German DM, and 1:2 for the remainder. West German companies have already started to move into the country, and several U.S. companies have participated

in the move through their West German subsidiaries. These changes find West Germany in the middle of a booming economic expansion fueled by the large inflow of immigrants from East German and other Eastern countries during the last two years.

Apart from rising West German real growth, which will spill over to Germany's main trading partners, a notable consequence of these changes has been a distinct rise in German interest rates, which are now above U.S. rates for the first time in 20 years. High German interest rates reflect two factors: the expected high real rate of return on investment in East Germany and other Central European countries financed through West Germany's capital market, and increased uncertainty about inflation, as the West German Bundesbank embarks on the difficult task of managing monetary policy for both countries. The Bundesbank's reputation and historical performance indicate little reason to fear that monetary union will increase Germany's trend inflation rate in the long run; yet the variability of inflation is likely to rise as very little is known about the demand for money in East Germany.

The international repercussions of these developments are twofold. In the near future, high interest rates will attract capital to Germany and Central Europe and push up interest rates in the U.S. and elsewhere. The U.S. will find it more difficult to attract the capital necessary to finance its current account deficit. The higher attractiveness of investment in Germany will also be reflected in a stronger DM, which has already appreciated about 10% against the dollar since fall. More than the U.S., the developing countries will feel the increased burden of higher world interest rates. This may damage their financial stability and reduce their growth prospects in the near future. On the other hand, a weaker dollar and growing demand for investment and consumer goods from Central Europe will improve the export opportunities of the U.S. and the developing countries.

The current economic developments of Japan are of a very different nature. Japan is now paying the price for participating in an ill-conceived effort of international monetary policy coordination between 1985 and 1988. Japan's policy of cheap money aimed at supporting the dollar caused stock and property prices to soar. These tendencies have been reversed as Japanese monetary policy has become more restrictive to fight the revival of inflation. The underlying real economy remains healthy, but the Japanese business sector has suffered a significant financial downturn—reflected in a drastic decline in the Tokyo stock market, with the result of a weakening yen and a fall in the current account surplus to an estimated $40 billion in 1990. Japan is likely to cut back the supply of capital to the world's financial markets, which contributed largely to the financing of the U.S. current account deficits of the past decade.

The dollar is thus torn between two tendencies: depreciation against the DM and other European currencies, and appreciation against the yen. Given the predominance of U.S. trade with Asia and Canada and the current weakness of the Canadian dollar, we foresee a slight to moderate appreciation in the trade-weighted value of the dollar. At the same time, however, the reorientation of international capital flows away from the U.S. should lead to a stagnation if not a slight improvement of the U.S. current account.

Interest Rates and Financial Markets

Donald L. Tuttle

Professor of Finance, Indiana University School of Business

The easing of interest rates for 1990 that was forecast last December had not materialized by the end of May for a number of reasons. They include the Federal Reserve's continued concern with inflation, the large supply of debt coming to market, the continued overhang of junk bonds, and the concern over financing both a larger-than-forecast federal government deficit and an expanding S&L bailout. Long-term government bond yields rose from about 8.0% to 8.6% in the first five months of 1990. The steepening of the yield curve that had been projected did materialize during these same months, with the spread between short- and long-term government rates moving from zero to 100 basis points by late May.

The most likely scenario for the remainder of 1990 is no change—relatively moderate and stable real growth, inflation, and monetary policy. The only exception would be if the economy shows signs of significant weakness toward the end of the year, in which case rates will fall as monetary policy eases. A possible cause of such a scenario would be a continuation of the constraints on lending imposed by banks, which have caused credit growth over the last several months to be the lowest in decades.

The forecast for a relatively lackluster equity market and a total return in the 10-13% range still holds. In 1990 the stock market has been characterized by two phenomena. One is the sharp decline in some overseas markets, especially the Japanese market, followed by sizeable recoveries. The other is the large difference in performance between large-capitalization U.S. stocks and small-capitalization issues, accentuating a trend that began in 1983. The differ-

ence in total return between these two groups approximated 4.5% in the first five months of 1990.

The ingredients that support a moderate return in the stock market for the balance of 1990 include a low-growth economy with moderate inflation and stable interest rates, strong dividend growth to counterbalance a weak corporate profit picture, and large liquidity of institutional investors coupled with equity ownership by institutions at historically low levels relative to other holdings.

Housing

George H. Lentz

Assistant Professor of Finance and Real Estate, Indiana University School of Business

Mortgage rates fell in the third and fourth quarters of 1989. But instead of continuing to fall, as we forecast six months ago, rates for both fixed-rate and adjustable-rate mortgages have risen slightly during the first four months of 1990. There are signs, however, that they have begun to level off, and they may have even decreased slightly recently. In December 1989, fixed rates had fallen below 10%, but they had risen to slightly over 10.5% at the end of April 1990. In the previous forecast we predicted that the average interest rate for fixed-rate mortgages would be 9.5-9.75% for 1990, and we thought that most of the downward movement would occur in the first half of the year. We now feel it is unlikely that rates will fall into the single digits before the fourth quarter. Rates should level off or even decrease slightly for the remainder of the year because of the expected softening of the economy, unless an overriding factor, such as a credit shortage, should have a countervailing effect.

A credit shortage may affect mortgage rates in two ways. First, in the wake of both the S&L debacle and severe overbuilding in many real estate markets, there are signs that financial institutions (especially banks) have been pulling in their real estate lending horns. Most of the complaints of a "credit crunch" are coming from those in the acquisition, development, and construction side of the real estate market. Second, and more important with respect to the economy in general, is the possible diversion of international capital flows from the U.S. toward Europe. This diversion of funds, coupled with a federal budget deficit in constant need of funding, could exert upward pressure on interest rates that would dominate the downward pressure exerted by a soft economy.

The National Association of Home Builders reported that total housing starts for 1989 were approximately 1.376 million units, which represents an approximate 7.5% decline from 1988 and the third consecutive annual decline in housing starts. After rebounding to a seasonally adjusted annualized total of 1.57 million units in January 1990, total starts fell in each successive month to 1.245 million units in April—the lowest level since October 1982. The slight decline in mortgage rates at the end of 1989 seemed to fuel the relatively sharp increase in housing starts in January. But this rise was choked off by the increase in rates that occurred during the rest of the first part of the year. We have no reason to adjust our previous forecast of 1.4 million units at this time.

The National Association of Realtors reports that sales of both new and existing single-family homes declined in 1989. Sales of new homes were down 3.8% (676,000 to 650,000 homes) and sales of existing homes were down 4.3% (3.594 to 3.440 million homes). An interesting note is that sales of existing homes for 1988 were the largest number since 1979.

Sales of new and existing homes in the Midwest during 1989 moved in opposite directions. Sales of new homes in the Midwest were 5.2% higher than for 1988 (the only region in the country to show a net increase). Sales of existing homes, on the other hand, were down 1.07%. The number of sales in the Midwest seemed strong relative to starts, at least compared to national figures. Expectations of a weakening regional economy may have limited building activity even though sales remained relatively strong.

Data indicate that, nationally, the median price of existing homes increased approximately 5.1% (from $91,200 to $95,900) from first quarter 1989 to first quarter 1990. The median price of new homes increased approximately 5.6% over the same period (from $118,000 to $124,600). During first quarter 1990 the median price of existing homes increased about 3.4% over fourth quarter 1989 (from $92,700 to $95,900).

The construction of multifamily housing has declined substantially since 1985. For 1989, multifamily housing starts were 372,000, a decline of 8.6% from 1988. Multifamily starts have declined every year since 1985 and in first quarter 1990 were 77,000 (a quarterly, not annualized, number), a decline of 9.4% from fourth quarter 1989. The trend of declining investment in multifamily housing that characterized most of the 1980s is apparently continuing into the 1990s. In the previous forecast we said that the decline in multifamily housing construction should begin to bring vacancies down and thus put upward pressure on rents, stimulating construction. Though vacancy rates have declined slightly in the last two years, they remain high in the face of a low level of production, which does not bode well for new construction, at least in the short term.

A Closer Look at Indiana's Economy

Morton J. Marcus

Director, Indiana Business Research Center, Indiana University School of Business

By most accounts, Indiana's economy in 1989 steamed ahead. The evidence is coming in, but is it clear? Employment, the magical touchstone indicator, reached an all-time record level of more than 2,760,000, with a growth of more than 93,000. For the second year in a row, Indiana's rate of growth in employment outpaced the nation. In 1989 Hoosier employment grew by 3.5% while the nation's employment advanced only 2% (see **Table 1**). As a result, Indiana's 1989 share of total employment in the U.S. (2.35%) was above the 1986 level.

This good news is diminished somewhat when the year is examined in more detail. **Figure 1** offers a view of employment through the percent change for each month from the same month a year earlier. This technique allows us to move around the sticky issues of seasonal adjustment. For the nation, there is a slight downward trend in the data since mid-1987 and a clearer downward tendency since late spring 1989. For Indiana, the downward trend is most evident since mid-1989. The growth observed in the annual data is seen to be proceeding at a declining rate through the latter part of 1989 and into first quarter 1990. In March 1990, our latest observation at this writing, we have, for the first time since December 1987, a month that was below the same month a year earlier. The run of 26 advancing months was over.

When first quarter 1990 is taken as a whole, Indiana's employment declined by a minor amount—just 1,900 persons, or less than one-tenth of one percent. Thirty-seven states had employment gains in first quarter 1990 compared to the same quarter 1989. Indiana ranked 38th, with the smallest decline of those with lower levels of employment (**Figure 2**).

The big gains in employment in first quarter 1990 were in southern and western states. Nationally employment grew by 1.1%, with the state of Washington leading at 6.9%. The other extreme was the District of Columbia, with a 3.9% decline.

Figure 1
Number of Persons Employed—Percent Change from Year Before

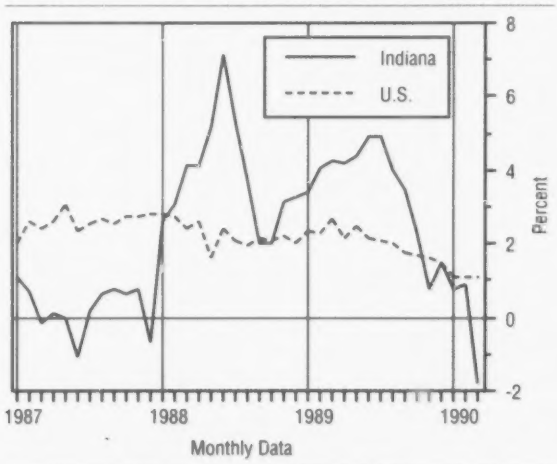


Table 1
Number of Persons Employed (000s)

	Indiana	U.S.	Percent of U.S.	Percent Change Indiana	Percent Change U.S.
1986	2,564.2	109,597.5	2.34		
1987	2,570.3	112,440.4	2.29	0.24	2.59
1988	2,668.0	114,968.3	2.32	3.80	2.25
1989	2,761.4	117,326.1	2.35	3.50	2.05

Source: U.S. Bureau of Labor Statistics via EDIN (LFME)

Employment losses were recorded in states from New England and the Mid-Atlantic regions to the Midwest. Massachusetts, its "miracle" in remission, had a loss of 66,000, or 2.2%. Auto industry layoffs may have been a factor in the negative numbers for states from Pennsylvania to Wisconsin. The trauma of the paper economy, those back-room layoffs from financial firms, may be the contributing factors in Connecticut and New Jersey, as well as Massachusetts.

Earnings

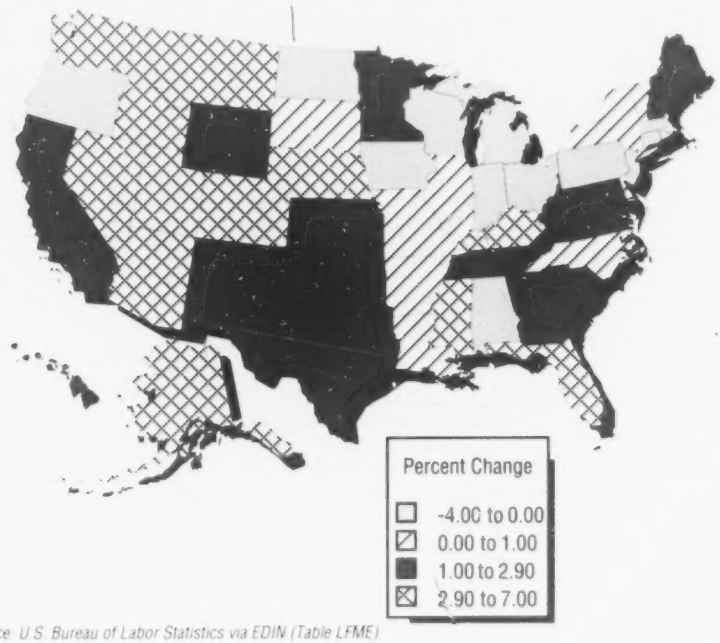
Employment earned the people of Indiana $65.5 billion in 1989. This was up nearly 8% from 1988, compared to a 6.4% rise nationally. It was the first time since the end of the recession earlier in the decade that Hoosier earnings grew at a faster rate than earnings nationwide. (Data reported in this section are in nominal rather than real terms.)

The most favorable aspect of this growth is how widespread it was. Indiana outpaced the nation in all but three categories of earnings (see **Table 2**): services, and federal civilian and military earnings. The state has lagged the nation in rate of earnings growth for business and personal services for four years.

In all other classifications, Indiana's earnings in 1989 exceeded the national rate of growth. Of note were mining and construction, where the state was a full 5% ahead of the national rate of increase. Indiana has exceeded the national rate of growth in construction and in transportation and public utilities earnings for the past four years. For the first time in several years, earnings in Indiana from finance, insurance, and real estate were growing faster than in the U.S.

The most dramatic change came in farming. Because of the drought in 1988, Hoosier farm earnings in that year were down nearly 30% compared with a national decline of only 3%. On the rebound, Indiana grew in 1989 by 102%, doubling the 1988 level of earnings and surpassing the nation's modest, ordinary 5.5% increase. The rebound in farm earnings gave Indiana 2.6% of all farm earnings in the

Figure 2
Percent Change in Number of Persons Employed from First Quarter 1989 to First Quarter 1990



Source: U.S. Bureau of Labor Statistics via EDIN (Table LFME)

nation. This is the highest share Indiana has of any national industry other than the manufacture of durable goods, where the share is 4% (see Table 2).

Farm earnings accounted for 13.2% of the increase enjoyed by the state in 1989 (see **Table 3**). Farming, however, constitutes only 1.9% of all earnings in the state. Services, despite their slower than national rate of growth, made a greater contribution to the state's advance. In 1989 they were 19% of total earnings and contributed nearly 23% of the growth in earnings. The $1.1 billion growth of Services was the greatest magnitude increase for the state in 1989.

State and local government also generated a portion of the 1989 surge. With barely 10% of all earnings, these units accounted for 11.6% of growth; their contribution was just shy of $560 million.

Despite their importance (24.3% of earnings), the durable goods industries provided just 14.3% of the growth—though still in excess of $688 million.

Considerations

The data reported above are encouraging, but as annual numbers they can hide important trends. From the quarterly data we can note a few points worth observing in the months ahead.

One way of following trends is to note the percent each sector in Indiana has of the nation's earnings—in effect, the Hoosier market share. **Figure 3** provides a close-up view of Indiana's share of total U.S. earnings. At this scale the changes are dramatic;

Table 2
Earnings by Industry, 1989

	Indiana	*U.S.*	*Ind./U.S.*	*1988-89 Percent change*		*Difference*
	(Millions of dollars)		*(percent)*	*Ind.*	*U.S.*	*Ind.-U.S.*
Total Earnings	65,477	3,164,244	2.0693	7.9	6.4	1.6
Farm Earnings	1,259	48,334	2.6038	101.8	5.5	96.3
Non-Farm Earnings	64,219	3,115,910	2.0610	7.0	6.4	0.6
Private	55,831	2,616,542	2.1338	6.7	6.2	0.5
Ag Serv., For., Fish. & Other	269	19,102	1.4083	5.0	3.8	1.2
Mining	374	30,498	1.2271	4.5	-0.7	5.2
Construction	4,038	195,699	2.0631	8.2	2.7	5.6
Manufacturing	21,292	627,217	3.3946	5.0	3.9	1.0
Non-durable Goods	5,360	233,773	2.2926	6.3	4.6	1.8
Durable Goods	15,932	393,445	4.0493	4.5	3.6	1.0
Trans. & Public Utilities	4,599	210,884	2.1808	5.5	5.4	0.1
Wholesale Trade	3,611	208,739	1.7299	8.8	7.7	1.1
Retail Trade	6,095	299,828	2.0329	6.4	5.7	0.7
Fin., Ins., & Real Estate	3,077	224,253	1.3722	5.9	3.8	2.1
Services	12,478	800,325	1.5591	9.7	10.2	-0.5
Government/Govt. Enterprises	8,388	499,368	1.6796	8.6	7.4	1.2
Federal Civilian	1,462	104,788	1.3950	7.3	8.0	-0.7
Federal Military	339	44,770	0.7572	1.6	3.6	-2.1
State and Local	6,587	349,810	1.8829	9.3	7.7	1.6

Source: U.S. Bureau of Economic Analysis via EDIN (Table PITE)

Table 3
Change in Earnings, Indiana, 1988 to 1989

	$ millions	*% of total change*	*% of total earnings*
Total Earnings	4,817.50	100.00	100.00
Farm Earnings	634.75	13.18	1.92
Non-Farm Earnings	4,182.50	86.82	98.08
Private	3,518.25	73.03	85.27
Ag Serv., For., Fish, & Other	12.75	0.26	0.41
Mining	16.00	0.33	0.57
Construction	307.50	6.38	6.17
Manufacturing	1,008.50	20.93	32.52
Non-durable Goods	319.50	6.63	8.19
Durable Goods	688.25	14.29	24.33
Trans. & Public Utilities	240.50	4.99	7.02
Wholesale Trade	291.50	6.05	5.51
Retail Trade	367.25	7.62	9.31
Fin., Ins., & Real Estate	171.75	3.57	4.70
Services	1,104.25	22.92	19.06
Government/Govt. Enterprises	664.25	13.79	12.81
Federal Civilian	99.25	2.06	2.23
Federal Military	5.25	0.11	0.52
State and Local	559.50	11.61	10.06

Source: U.S. Bureau of Economic Analysis via EDIN (Table PITE)

if the y-axis scale were 0 to 3, then the line would show virtually no change, but it would also provide little information. The sharpest spikes are closely associated with changes in farm earnings, as depicted in **Figure 4**. Despite the small share farm earnings represent in the Indiana total, they contribute strongly to the volatility of the state's economy.

But other forces are to be noted. Private sector non-farm earnings showed a strong surge in first quarter 1990—during what appears to be a downward trend, which resumed soon thereafter (see **Figure 5**). So it was not farm earnings alone that have driven the variations in the state's share of the nation. Durable goods manufacturing (**Figure 6**) experienced very strong growth relative to the nation in early 1989, but those gains were lost in the second half of the year. Similar patterns can be found in finance, insurance and real estate, as well as wholesale trade, for the first three months of 1989.

These observations give rise to some questions: Did Indiana have an unusually strong first quarter while the rest of the nation was stolidly going about its business? For example, the growth rate in earnings for first quarter 1989 for wholesale trade was 4.9%, preceded by a rate of 0.5% and followed by a rate of 0.2%. That is clearly a spike. During the same time the respective rates for the nation were 1.85%, 1.75%, and 1.78%. Why should Indiana's wholesale trade sector demonstrate such vigor? Similar questions can be asked of the data for other sectors.

We doubt that the data are wrong. There could be some subsequent revisions, designed to drive analysts insane, but the numbers presented here are those currently available. The seasonal factors used to delete normal variations could be faulty. Or, it is possible that we had a great boom in the Indiana economy during first quarter 1989 and this writer played Rip Van Winkle while the rest of you experienced it.

If the last of these reasons is correct, apologies are extended. If some other explanation is in order, then the euphoric response to the 1989 annual data needs to be put on hold.

Figure 3
Indiana's Share of U.S. Total Earnings

Figure 4
Indiana's Share of Farm Earnings

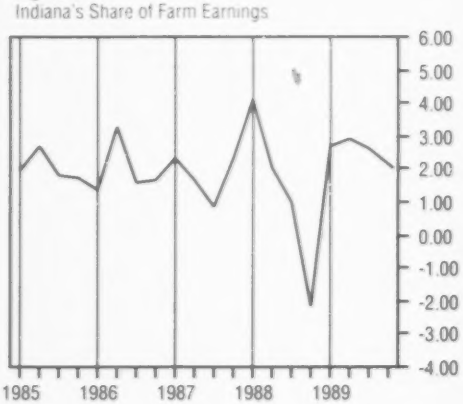


Figure 5
Indiana's Share of Private Non-Farm Earnings

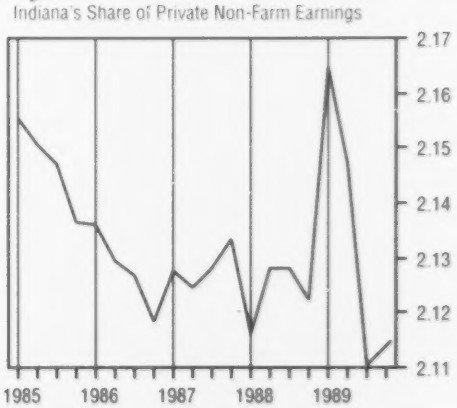
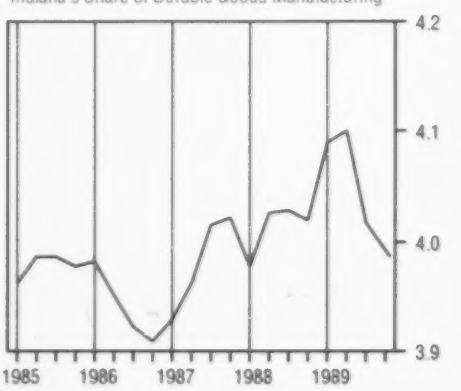


Figure 6
Indiana's Share of Durable Goods Manufacturing



Indianapolis

Robert Kirk

Professor of Economics, Indiana University-Purdue University at Indianapolis

The Indianapolis metropolitan economy will continue to grow, but at a slower rate as we approach 1991. The primary reason is a slow-growth national economy. Although a sluggish national economy would suggest weakness in loan demand and, therefore, downward pressure on interest rates, there are other factors that may result in less downward movement than expected. These factors include, for example, the Resolution Trust Corporation's need for "working capital" to purchase assets of insolvent thrifts. The consequence of this interest rate scenario is a 2% growth rate in employment and personal income for Indianapolis as we move through the second half of 1990 and into 1991, rather than the more-than-3% rate that we have enjoyed recently.

Recent Performance

Indianapolis has been a strong performer throughout the 1980s, as indicated by per capita personal income rankings in **Table 1**, which provides information about levels of income and rates of change. Public and private officials responsible for economic development may take satisfaction in the comparatively high rate of change for Indianapolis. Since the data are *per capita* personal income, different rates of population change have been accounted for.

Table 1
Per Capita Personal Income for Selected Metropolitan Areas, 1983-88

Metropolitan Area	*% of National Average*		*Rank*		*% Change*
	1983	*1988*	*1983*	*1988*	*1983-88*
United States	100.0	100.0	---	---	36.3
INDIANAPOLIS	**100.0**	**103.0**	**106**	**75**	**40.4**
Chicago	115.9	115.6	34	34	35.9
Cincinnati	100.8	100.9	102	92	36.4
Cleveland	111.0	110.2	44	51	35.3
Columbus	97.5	98.6	137	110	37.7
Dayton	97.3	97.7	138	114	36.9
Detroit	106.8	112.5	65	45	43.5
Kansas City	106.9	103.6	64	70	32.1
Louisville	95.5	95.1	155	129	35.7
Memphis	90.6	93.7	192	137	40.9
Nashville	93.6	98.6	170	109	43.6
St. Louis	108.7	108.0	53	57	35.4

Source: U.S. Department of Commerce

Population change is equal to natural increase (births minus deaths) plus net migration. **Table 2** illustrates components of population change for the Indianapolis metropolitan area and its component counties, 1983-88.

Concerns Facing Indianapolis

Tables 1 and 2 describe the past; what about the future? The economic record of the past has provided confidence and momentum, but it has also created some concerns. One concern is excess inventory in office space. Forces that drive demand for office space at the national level include growth in the adult population, share of the population working in offices, and amount of space per office employee. At the local level, demand is derived from expansion of existing firms, and new firms generated locally or attracted from other areas. Although more of the population will be working in offices and space per office employee will grow, the national rates of growth will decrease in the 1990s. Indianapolis has had a comparative advantage due to its central location and the lower cost of office space. However, costs associated with infrastructure and environmental improvement may somewhat diminish this advantage. In the short run, to reduce vacancy rates, production will trail absorptions.

Retailing will become increasingly competitive as stores such as Wal-Mart enter the metropolitan area and Melvin Simon seeks (as of mid-June) final commitments from anchors to fill the Circle Centre Mall. Retailing has tended to follow residential development; Circle Centre Mall is expected to depend upon an estimated 20-25% of its sales receipts from a radius beyond 75 miles of Indianapolis. Thus, a continuous flow of conventioneers and other visitors is required.

Table 2
Components of Population Change, Indianapolis Metropolitan Area and Component Counties, 1983-88

County	*Change in Population*	*Natural Increase*	*Net Migration*
Marion	19,900	32,700	-12,800
Hamilton	16,300	3,900	+12,400
Johnson	5,600	2,700	+2,900
Boone	1,000	1,000	0
Hancock	1,700	900	+800
Hendricks	4,700	2,300	+2,400
Shelby	0	1,200	-1,200
Morgan	2,000	1,600	+400
METROPOLITAN AREA	*51,200*	*46,300*	*+4,900*

Source: Indiana Business Research Center, Indiana University

A second concern also arises from the population shifts in Table 2, which show an increased need for a multicounty approach to problems arising from this growth. To deal with this, the Indiana General Assembly has conferred on all counties the authority to establish multiple county infrastructure authorities (MCIAs). These authorities have the power of eminent domain, to enter into contracts with a political subdivision, borrow money and issue bonds, operate and charge fees for the use of infrastructure improvements, and enter into a lease of infrastructures. Infrastructure means sewage works, thoroughfares, solid waste disposal facilities, and any other capital project.

As the number of vehicles increases faster than the capacity of the transportation system, costs (time and environmental) arise at peak load times. Since transportation problems involve several counties, a multicounty framework is required. The governmental structure has been provided. Short-run solutions involve mechanisms to manage existing capacity; long-run solutions involve increases in capacity and alternative modes—and are much more costly.

A third concern is today's auto-dependent transportation system. For example, the Circle Centre Mall must be "auto-friendly." However, the large number of autos for a relatively small area makes it more difficult for the city to attain air quality standards. The autos emit carbon monoxide downtown and, due to prevailing wind patterns, contribute to the production of ozone in the surrounding counties.

Consumption

Nationally, consumption has been a major contributor to the economic expansion during the 1980s, rising from 62.8% of real GNP in 1979 to 64.4% in 1989. I have examined some components of consumption at the state level and make the following observations:

1. Building supplies, automobile expenditures, furniture, and restaurant dining are responsive to the proportion of a state's population aged 18-35 (the baby boomers) during the 1980s. This age group was then in the household formation phase of life, purchasing the first home and incurring household-formation expenditures.

2. Women's clothing is very responsive to the increase in state disposable income per household. As the demand for eating out has increased, with the women in this age group being gainfully employed, so has their demand for suitable clothing.

As the baby boomers age, will these patterns of consumption continue? The life-cycle analysis of saving suggests that households borrow in the early years, save during the peak earning years, and then dissave during retirement. The decade of the 1980s has been characterized by historically low private saving rates (saving excluding the accumulation of government pension funds and the social security trust fund). The legacy of the 1980s has been to burden future generations by a public and private consumption experience of unprecedented proportions.

At the micro level, not all groups have benefited equally. High-wage workers have shown increases in real earnings, workers around the middle have shown only small changes in real earnings, and low-wage workers have experienced decreases. Changes in the industrial composition of jobs have disadvantaged less-educated minority males relative to other population groups and resulted in problems in family formation and nurturing.

For Indianapolis to continue as a strong performer in the 1990s, we will need to modify attitudes and institutional incentives to bring about a better labor market demand and supply match. Indianapolis's for-profit, governmental, and nonprofit institutions can make important contributions by developing a constructive response to this challenge.

Northwest Indiana

Leslie P. Singer

Professor of Economics, Indiana University Northwest

There is not much drama to report for the remainder of 1990. We have an essentially stable manufacturing sector and continuous growth in the nonmanufacturing sector. The expansion rate is pretty much as we had predicted. No significant changes from the aforementioned growth patterns are anticipated.

We may take this opportunity to focus on persistent structural changes that are altering the features of the Northwest Indiana economy. We have for many years referred to the region as the Gary-Hammond-East Chicago regional economy. We have identified the region, and notably Lake County, by those three principal urban communities. Such a characterization may no longer be appropriate, even if we do not include Porter County, which is, of course, part of the primary metropolitan statistical area (PMSA).

Consider the following: Projections for 1992 indicate that more than 50% of households will reside in nonurban surroundings. The population outside the three cities will account for 57.3% of aggregate personal income. Moreover, 66.3% of retail square footage planned and in place will be in nonurban areas. Almost 70% of all financial, medical, and similar service jobs will be located in nonurban areas. More than 67% of all retail sales, other than groceries and drug store sales, and close to 69% of nonmanufacturing jobs, will occur outside the urban centers. Over one million square feet of commercial expansion will oc-

cur at both the east and west ends of Lake County.

More than 80% of all popular cultural events and entertainment such as movie theaters, exhibitions, concerts, and conventions occur outside the urban centers. This does not mean that nothing takes place in the cities anymore. The two major universities, Indiana and Purdue, are still in the cities and are likely to remain there. The new university, Park Medical Center, is a splendid example of vibrant black entrepreneurship. The marinas in Hammond and East Chicago will breathe new life into the Michigan shoreline, circling the urban regions of Lake County. Nevertheless, the character of Lake County, which we have always identified as urban, is changing. De-urbanization has altered its economic and social fiber.

De-urbanization in Lake County is underscored by the fact that of the 1,100 to more than 1,300 single-family residential structures that are built each year, more than 99% are located in non-urban areas. The average of nine to 12 structures built in urban areas is significantly fewer than the number of structures deserted, torn down, or abandoned in the cities. If single-family dwelling units and commercial buildings are totaled, the percentage is still around 95%. We also note that more than 85% of the buildings and offices are located south of or in close proximity to Highway 30, where new communities are emerging.

One could easily brush this off by contending that such events take place in all cities. However, that would be an incorrect assessment. Chicago is still expanding and so is Indianapolis; these cities remain the cultural, economic, and financial hubs of their respective hinterlands. In Lake County, however, the next century will witness a dramatic shift of identity from the cities to the new communities in the south. Here political, economic, and social power may articulate a commonality of interest that, unfortunately and to their detriment, the cities of Gary, Hammond, and East Chicago have never achieved.

Is the erosion of the industrial base a factor? To some degree that is the case. Of the almost $6 billion of annual personal income in Lake County, only 23.8% is contributed by the manufacturing payroll. In addition to the nonmanufacturing payroll, the remainder comes from pensions, transfers, the health care industry (mostly supported by public and private insurance), business profits, retirees' liquid assets, and exports of human resources (labor to Chicago).

The highly skilled labor force, once the pride of the cities and a major attraction for industry to locate here, is aging and retiring. The new skills required by modern industry are no longer produced in abundance in the urban sectors. Those skills can now be found mainly in the nonurban communities. Eventually, new small plants will locate where the skills exist, which is the nonurban sector of Lake County.

Our computer programs have made only minute revisions of our 1989 forecast. The most volatile sector of the local economy has been construction, and that is where revisions were required. We predict continued strength in construction, barring an unforeseen surge in interest rates, which we do not anticipate.

The manufacturing sector remains uninspired. Steel employment does not seem to have been affected by the national decline in auto sales. The steel payroll declined less than 6% in the months when the downturn in the auto industry was most pronounced.

The non-goods producing sector—a new term in the Indiana State Employment reports—is still going strong. At some point, possibly after 1992 or 1993, the manufacturing sector will have to expand; otherwise, the growth in local employment will not be sustainable. We may have a local recession even though the national economy may still be forging ahead.

Table

Seasonally Adjusted Data for Northern Indiana (Employment in 000s, payroll in $ billion)

	Actual				Forecast				
	January 1988	*January 1989*	*January 1990*	*1Q 1990*	*2Q 1990*	*3Q 1990*	*4Q 1990*	*1Q 1991*	*2Q 1991*
Total Employment	221.00	230.60	238.20	242.25	244.90	246.97	247.57	247.93	247.98
Manufacturing	56.20	57.40	56.30	57.50	58.18	57.04	56.83	57.32	57.84
Steel	35.30	35.20	35.10	35.70	36.10	35.12	35.44	35.89	36.19
Non-Steel	20.90	21.80	21.21	21.80	22.08	21.92	21.39	21.43	21.65
Non-Goods Producing	154.20	161.00	167.90	169.22	170.69	171.71	171.42	172.08	172.61
Trade	52.10	54.90	56.70	55.71	58.52	59.15	60.32	58.91	58.95
Government	31.60	31.80	31.90	31.60	30.87	31.93	32.10	31.72	32.31
Services	47.60	50.50	55.10	54.91	54.39	56.23	57.99	57.49	56.99
Payroll (Annualized)									
Manufacturing	1.87	1.87	1.98	1.93	2.05	2.04	2.01	2.11	2.15
Steel	1.22	1.22	1.37	1.28	1.34	1.33	1.31	1.38	1.41
Construction	10.60	12.60	14.70	15.53	16.03	17.08	16.32	15.53	17.53

Note: Total Employment = Manufacturing + Construction + Non-Goods Producing employment.

Fort Wayne

Thomas L. Guthrie

Associate Professor of Business and Economics and Director, Community Research Institute, Indiana University-Purdue University at Fort Wayne

The Fort Wayne area economy continued to eke out a gain through May 1990, according to preliminary data. Seasonally adjusted nonagricultural payroll employment totaled 204,600—an increase of 900 from December 1989. This is consistent with the original forecast (*IBR*, December 1989) of a "tepid" 1990 area economy—1-2% growth by year-end 1990.

The original forecast suggested the likelihood of a slight decrease in employment the first half of the year resulting from an anticipated downturn in auto/truck production. Industrial use of electricity declined through May (see the **Figure**), but employment did not. However, that the data are subject to significant revisions was reinforced with the release of newly "benchmarked" data for 1988 and 1989. (Benchmarking is the process by which the preliminary employment estimates—which are based on a sample of employers—are reconciled with employment reports that must be submitted quarterly by all employers.)

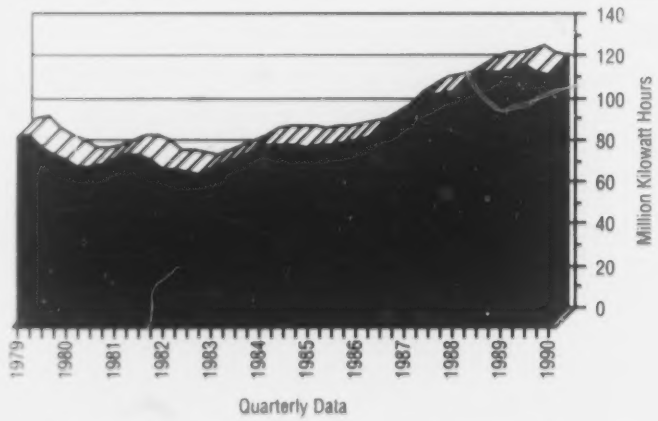
The 1988 employment increase in the Fort Wayne area was revised to 8,900 from 5,500, and 1989 was revised to 5,700 from 4,700. As a result of the revisions, the annual percentage growth in employment in the Fort Wayne area now has exceeded growth in U.S. employment for six consecutive years. Based on the preliminary data, the string was broken in 1988, but the revisions reversed that. Since 1982—the end of the last recession—Fort Wayne area employment has increased 38.3%. The comparable data series for U.S. employment has increased 23.5%.

Internally, the area economy continues its long-term restructuring trend—trading goods-producing jobs for service-producing jobs. In the last year (ending in March), transportation equipment shed 1,600 jobs and business and personal services added 1,100 jobs. Personal and business services account for approximately one-third of the employment in the service-producing sector in the Fort Wayne area. More importantly, the service-producing sector of the area economy now accounts for more than two of every three jobs.

The ever-growing question is to what extent the service jobs are "basic" to the area economy—producing services being purchased by individuals/companies residing outside the geographical area. This would provide additional information as to the sensitivity of the area economy to an economic downturn.

We probably won't get an answer to that question in 1990, since a major national recession still doesn't appear likely in the near term. Tepid still characterizes the Fort Wayne area forecast.

Figure
Use of Electricity by Industry in the Fort Wayne Area
5 Term Moving Average



Source: Indiana Michigan Power Co. Data seasonally adjusted by the Community Research Institute, IPFW.

Columbus

Patrick M. Rooney

Assistant Professor of Economics, Indiana University-Purdue University at Indianapolis, Columbus

The local labor market is weaker than it has been for several years. With the exception of our Help Wanted Advertising Index, which is up 9% from first quarter 1989, all labor market indicators have worsened when compared to fourth quarter 1989 and first quarter 1989. For example, the number of persons employed has fallen 3% from a year ago. During this time, the number of persons unemployed has increased 33%. Consequently, the unemployment rate has grown 35% from a 5.4% monthly average in first quarter 1989 to a 7.3% monthly average in first quarter 1990. Likewise, the number of unemployment insurance claims, both continued and new, have grown quite rapidly.

The recent trends in the labor market dramatize the boom-bust nature of a community that relies upon durable goods manufacturing as its employment core. As the national unemployment rate fell to 5.2%, the local unemployment rate fell even faster into the 4.0-4.5% range. Unfortunately, as the national unemploy-

Table
Columbus Area Data

	1Q 1990	2Q 1989	% Change	1Q 1989	% Change 1Q1989-90
Employment Data:					
Number of Persons Employed	28,427	30,023	-5	29,267	-3
Number of Persons Unemployed	2,233	1,733	29	1,680	33
Unemployment Rate	7.3%	5.5%	33	5.4%	35
Continued Unemployment Insurance Claims—Columbus	3,996	1,786	124	2,486	61
New Unemployment Insurance Claims—Columbus	530	400	33	396	34
Help Wanted Advertising (1967=100)	146	144	1	134	9
Housing Construction Data:					
Estimated Value of Permits Issued (000s)	5,431.1	4,585.3	18	3,085.0	76
Number of Permits Issued	49	43	14	36	36
Average Value per Permit	110.8	106.6	4	86	29
Residential Real Estate Data:					
Sold	198	---	---	164	21
Average Days Listed	110	---	---	123	-11
Average Market Price	$73,667	---	---	$61,894	19
Sales Data:					
New Car Sales	401	357	12	488	-18
Used Car Sales	1,938	2,047	-5	2,672	-27

Sources: Indiana Business Research Center, Indiana University; The Republic, Department of Technical Code Enforcement; Indiana Bureau of Motor Vehicles, Multiple Listing Service; Indiana Department of Revenue; Indiana Bureau of Economic Analysis.

ment rate edges up, the local rate tends to shoot up, reaching 8.7% in March, which is almost 3.5% above March 1989.

So far, the labor market information has not adversely affected housing construction data. The estimated value of permits issued has grown 18% from fourth quarter 1989 and 76% from a year ago. Because the number of permits issued did not grow as rapidly as the estimated value of permits issued, the average value per permit has grown a robust 29% from first quarter 1989.

Similarly, the local real estate market demonstrated healthy gains from a year ago. The number of houses sold grew 21%. The average days listed (of houses sold) fell 11%. Most importantly, the average market price (of houses sold) increased 19% from a year ago. Columbus's real estate market demonstrated considerable affordability last year; the median home price ranged from $48,000-$63,000 (quarterly averages) and Housing Affordability Index (HAI) scores ranged from 195 to 146. So far this year, the median-priced home in Columbus averaged $55,000, compared to $57,500 for all of Indiana and $69,900 in Indianapolis. Our HAI for the first quarter of 1990 was 171, which suggests that housing in Columbus was slightly more affordable than the rest of the state (160 average) and much more affordable than Indianapolis, which had an HAI of 138. (An HAI of 100 indicates that the median-income earner in an area can just afford the median-priced home, given current interest rates. A higher score suggests one could more easily afford the median-priced home.)

The labor market decline has definitely had an adverse effect on sales. New car sales are off 18% from last year, and used car sales are down 27% from a year ago. Total sales of $19.2 billion for first quarter 1990 are down 42% from the $32.9 billion in first quarter 1989. Likewise, taxable sales are off 47%, falling from $8.5 billion in first quarter 1989 to $4.5 billion in first quarter 1990.

On a more upbeat note, Columbus's quality of life tied for 27th of all 219 "micropolitan" areas (areas with 15,000-50,000 people). Columbus scored well on its proximity to urban areas, public safety, and the local economy. Its per capita income ranked 9th of all 219 areas. Its weakest area was "diversions." (We just have to be more creative.)

On the financial front, Arvin reported record sales in first quarter 1990, but falling net earnings. Although Cummins lost $6.1 million in 1989, it posted a profit of $8.9 million (net earnings) for first quarter 1990. This is down 54% from the $19.5 million net earnings in first quarter 1989, following a 23% decline in the production of heavy trucks.

Local Forecast

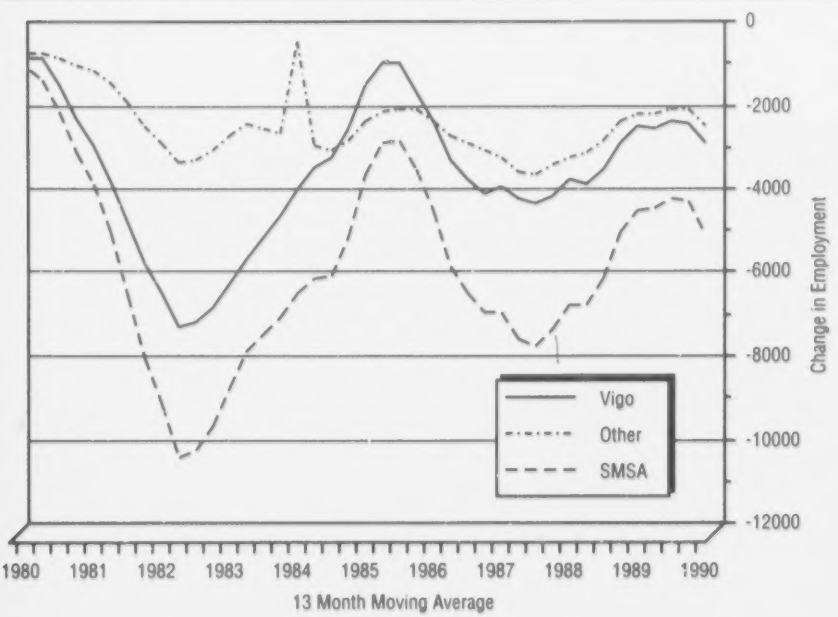
The last decade was difficult for many manufacturing communities. Columbus has probably fared better than most. Whether this decade is better depends on a large number of factors, both local and national. Nationally, if the budget summit generates substantial real deficit reductions, then interest rates should fall, making investment more attractive and the dollar less so. Both would help local firms. If the budget talks fail, interest rates and the dollar will remain relatively high, making it more difficult for local firms to compete in the international marketplace.

Locally, Arvin finally settled a protracted strike. It remains to be seen whether this can be translated into consistently higher productivity and profitability. Furthermore, Arvin's new strategy of internal growth, rather than growth by acquisition, should benefit the community substantially—if it is successful. However, given that the real output of autos is down 12% from a year ago and that car and truck sales were 17.7% lower for mid-May than a year ago, Arvin and other auto-related local firms may face a difficult year.

Cummins has had a rough time, but the outlook yields hope. While Cummins has laid off approximately 4,000 workers in the past decade, it has cut costs 22% since 1983. Unfortunately, this is less than the increase in the value of the dollar against the yen in the last 17 months. Finally, given that Cummins has reached a truce with its largest shareholder, the firm's management can focus on managing the firm and turning a profit, rather than fighting battles in court.

The Columbus economy is poised at a delicate transition point. If the national economy slows further, our local unemployment rate will continue its dramatic increase. If the local companies cannot prosper in an age of increasingly international competition, then the local service firms and real estate market will also suffer. Conversely, if the federal fiscal crisis can be controlled, then the local economy should rise with the rising tide.

Figure 1
Terre Haute Area Four-County Employment—Change from July 1979



Note: The Terre Haute SMSA now includes Vigo and Clay Counties only. "Other" includes Clay, Sullivan, and Vermillion Counties.

Source: INDIRS.

Terre Haute

Marvin Fischbaum

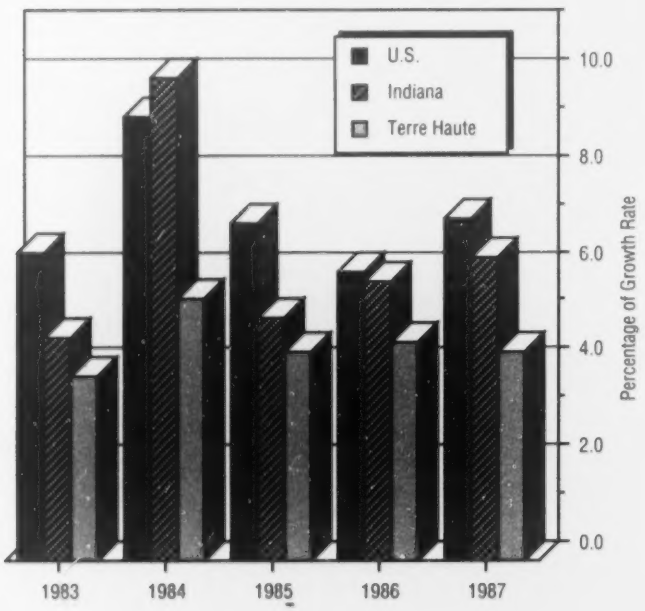
Professor of Economics, Indiana State University

Employment data suggest that the Terre Haute economy experienced a mild setback over fourth quarter 1989 and first quarter 1990. However, local business conditions last year never felt as strong as the employment numbers had indicated, and one finds little collaborative evidence of a downturn. From a longer-run perspective, recent developments lend credibility to the conjecture that the region is recovering from the shocks of the early and mid-1980s.

The unemployment rate for the Terre Haute MSA bottomed at 3.6% in June and July of 1989, rose to 4.7% by November, and then, in line with seasonal patterns, increased further to 5.7% in January. A decline to 5.0% in February was also typical of the season, but the preliminary March numbers brought an unpleasant surprise—a pop to a 6.0% rate. Establishment employment peaked at 59,600 in June 1989. Employment of 58,600 in September stood 2,400 higher than the level 12 months earlier. The gain from February 1989 to February 1990 was 200 jobs, and a March-to-March comparison shows that both jobs and labor force declined by 1,500.

Business relocations continued to have a negative impact on the region. Last January, Pillsbury announced that it will phase out local production of dry groceries over a period of 12 to 18 months. Eventually 270 jobs will be lost, but cutbacks to date have been modest. The gas, electric, and telephone companies all eliminated Terre Haute as a district office in moves that sent jobs to Richmond, Bloomington, and Lafayette, respectively. The number of positions involved is slight, but collectively these utility moves may reflect perceptions regarding Terre Haute's long-run prospects.

Figure 2
Personal Income—Annual Growth Rate



But these prospects may be turning around, as the export base is improving. Some recent consolidations involved moving people to Terre Haute. When UNC Aerospace took over Terre Haute's Tri Industries, it moved work here from Norwich, Connecticut. General Housewares Corporation, after acquiring Chicago Cutlery, is centralizing office operations in Terre Haute. Shenango Industries, another newcomer to the area, has also expanded beyond its initial projections. B.F. Goodrich announced a $19 million expansion of a facility for producing vinyl compounds that will add 40 workers. Bemis Co., in return for a seven-year no-strike labor contract, will invest $40 million in expanding its polyethylene film plant with a projected gain in employment of 200. Added to recently increased capacity at Tredegar for polyethylene film, at Hercules for polypropylene film, and at Alcan for aluminum foil, Terre Haute is rapidly becoming a major center for the production of packaging materials.

The Wabash Valley will also profit from $180 million in construction at Eli Lilly's Clinton Laboratory, largely for the purpose of pollution abatement. A $56-million, 600-bed prison will be located at Carlisle in southern Sullivan County. The prison will employ about 350, equivalent to 5% of the Sullivan County work force. In a county that has had a persistently high rate of unemployment—its rate in March was 9.5%—these jobs are most welcome.

Other new construction includes renovation of the main shopping centers, Honey Creek Mall in the south and Plaza North on the north side. A new strip shopping center along with a Toys-R-Us is underway just south of Honey Creek Mall. On a year-to-year basis, permits for residential construction were flat in dollar terms and off 12% in units. However, with the volume of nonresidential work started last year and still in progress, growth in construction employment has been dramatic, and projects announced this year assure that it will remain strong for some time to come.

The resale housing market continues to show modest improvement. Comparing the first quarter of 1990 with the corresponding quarter a year ago, the number of units sold declined slightly, but so did listings. Average days listed dropped from 169 to 159, while the average selling price rose from $40,304 to $50,850. That increase in selling prices reflects primarily a change in the mix of houses sold. Currently the market is strongest for a four-bedroom colonial in the $150,000 range.

Other indicators also point to continuing strength in the Terre Haute economy. Bank lending remains strong, although the quality of consumer loans may be uneven. Average weekly hours in manufacturing have been rising, reaching a strong 43.2 hours in February. The average weekly manufacturing wage at $438.38 in February increased 6.4% in a year.

Figures 1 and **2** aim at a longer-run perspective. They illustrate anemic economic performance in the 1980s for Terre Haute and for the surrounding counties—Vigo, Clay, Sullivan, and Vermillion. They suggest, though, at least modest improvement toward the end of the decade.

Evansville

Maurice Tsai

Professor of Economics, University of Evansville

In 1989, the Evansville economy posted a growth rate of 1.8% in the Area Business Index (see the **Table**). The earlier estimate of 2% growth did not materialize due to slower growth in industrial production and weakness in the finance sector. Growth in 1989 was spearheaded by sustained growth in trade and service sectors (3.6%) and in area employment (2.8%). The expected growth in transportation would be delayed until 1990. The decline in construction from the 1986 peak was reversed in 1989 with moderate growth of 0.8%. Area employment lengthened its growth streak to three years. The 1989 unemployment rate was 5%, the lowest since the 1981-82 national recession.

In 1990 the area economy should grow at 2.7%, higher than the national average. The major sources of growth will be in trade and services, revived public construction, and a new surge in transportation activities. The manufacturing activities are expected to grow at less than 1% because of the weak national economic conditions. The manufacturing employment in 1990 is about 1% below that of 1989. However, the recent decision by the Scott Paper Company to build a plant in the area will boost manufacturing employment and regional incomes in coming years.

Evansville's trade and service (private and public) activities are estimated to expand at 5.7% in 1990. In January 1990 the combined employment in these two sectors had a 65% share of local employment, overshadowing manufacturing's share of 23%. Increases in employment in wholesale trade, retail trade, and services from 1988 to 1989 were 4.1%, 4.2%, and 8.5%, respectively.

The construction index in 1990 will be 2.3% higher than in 1989. The residential construction in 1990 will be weaker than in 1989. Residential permit values in first quarter 1990 fell 2% from the same period in 1989. Business and public construction will revive slightly in 1990. Several business construction and expansion projects are still under way. So are public construction projects, such as the completion of the remaining portion of I-164 and the expansion of Roberts Stadium.

The transportation sector became much more active in 1990 after several years of low performance. Now that the Lloyd Expressway, the new airport terminal, and citywide street improvements have been completed, the impact has finally begun to be felt. The transportation index is estimated to rise by 4% in 1990, in contrast to no growth in the past several years. This trend should continue in years to come.

The financial sector still remains stagnant for 1990, although three major local banks have been very active in acquisition activities. The S&L institutions in the area have been soundly managed. This sector should begin to grow as national economic conditions improve.

The growth in local employment for the past four years has been quite satisfactory. The employment index gained 3% a year in the last two years. In 1990, the growth rate is estimated to be 3.7%. Although improvements in employment have been mostly in trade and services, manufacturing employment will begin to rise with the building of the Scott Paper Company plant in Posey County.

In summary, the Evansville economy will continue to grow in 1990, at an anticipated 2.7%, better than in the past three years. Trade and services are major forces in stimulating local growth. Transportation began to join forces in 1990. The manufacturing and finance sectors will not become very active until the national economic conditions improve.

Table
Evansville Area Business Index (1977=100)

	Industrial Production	*Trade & Services*	*Construction*	*Transportation*	*Finance*	*Employment*	*Composite Index*
Quarterly							
1Q 1989	126.03	123.34	120.41	99.72	108.17	114.39	120.78
2Q 1989	123.15	123.73	127.89	99.24	107.81	114.53	120.77
3Q 1989	125.12	123.28	109.08	99.78	106.91	115.70	119.75
4Q 1989	123.64	125.67	108.26	99.83	107.47	118.65	120.29
1Q 1990	125.55	128.69	124.37	104.51	106.38	118.38	123.65
2Q 1990*	122.93	129.76	128.62	102.25	106.53	118.03	122.63
Annual							
1986	116.92	110.70	174.44	99.48	109.91	107.36	117.33
1987	120.57	115.24	131.46	98.04	109.99	109.52	116.58
1988	123.76	119.71	115.54	98.58	108.38	112.67	118.22
1989	124.48	124.00	116.41	99.64	107.59	115.82	120.40
1990*	125.35	131.03	119.12	103.61	107.38	120.09	123.62
Annual Growth Rates (%)							
1985-86	2.3	1.7	60.5	0.3	4.4	0.5	7.1
1986-87	3.9	4.1	-24.6	-1.4	0.1	2	-0.5
1987-88	2.6	3.9	-12.1	0.6	-1.5	2.9	1.4
1988-89	0.6	3.6	0.8	0.1	-0.7	2.8	1.8
1989-90*	0.7	5.7	2.3	4	-0.2	3.7	2.7

Source: School of Business, University of Evansville.
** denotes estimates.*

Kokomo

Dilip Pendse

Associate Professor of Economics, Indiana University at Kokomo

Last December I predicted (60-40 odds) that Kokomo's economy would slide into a short recessionary phase in early 1990. The first five months' economic statistics, however, paint a different picture. The economy may not be robust, but it is not weak, either.

The year began with massive layoffs, reminiscent of 1980-82, at Delco Electronics and Chrysler Corporation, Kokomo's two largest manufacturing operations with approximately 16,500 employees between them. In addition, Delco instituted a hiring freeze in January. Fortunately, the layoffs, caused by softness in the auto market, turned out to be temporary. During the first two months as many as 1,500 hourly workers at Delco, nearly 21% of the hourly work force, remained temporarily idled (one week at most). Chrysler's story was no different. In the first week of January it indefinitely laid off 150 transmission plant workers. Three weeks later, 3,850 hourly workers—nearly 80% of the hourly work force—were temporarily furloughed (one week at most).

Due to their temporary nature, these massive layoffs had no lasting impact on the unemployment statistics. Howard County's unemployment rate averaged 6.7% for first quarter 1990, compared to 5.9% the year before. Again, compared to first quarter 1989, Howard County's average monthly labor statistics for 1990 indicate a shrinkage in the labor force, a reduction in the number of job holders, and a swelling of the number of job seekers.

What has kept mid-north-central Indiana's industrial hub alive and ticking is the service-producing sector. During first quarter 1990, on the average, 26,400 people per month held jobs in the service-producing sector, 5% more than the year before. The largest average monthly gain was registered in the service sector (700), followed by retail trade (500), transmission, communication, and utilities (200), finance, insurance, and real estate (200), wholesale trade (100), and government (no change).

Unlike the service-producing sector, the manufacturing sector registered a decline. The monthly average number of manufacturing jobs during first quarter 1990 was 3% lower than during the same period a year ago. Manufacturing jobs accounted for 43% of total jobs, compared to 45% in 1989. Not only did fewer people work in the manufacturing sector, they worked fewer hours due to production cuts. Through March 1990, the average manufacturing work week stood at 41.7 hours, 2.1 hours less than during the same period a year earlier. Naturally, because of the shorter work week, average weekly earnings in the manufacturing sector remained at $680, 5% below last year's first quarter level.

Data released by the U.S. Department of Commerce in May indicate that in per capita terms, Kokomo is still one of the most affluent areas in the state. Its per capita income rose 10% in 1988 to $15,786, the third highest in the state. Interestingly, 23 years ago Kokomo's per capita income was $3,578, also ranking the third highest in Indiana. Thus, per capita income in Kokomo has risen almost fivefold in a little over two decades!

Housing follows jobs, and although the job market in Kokomo is not hot, it is not subdued either. In fact, it is surprisingly stable. While the building construction activity remained considerably stable, the market for existing houses eased quite a bit. According to IU's Center for Real Estate Studies, Kokomo's realtors sold 141 homes during first quarter 1990, down 15% from the year before, and registering the second lowest first quarter volume since 1979.

Despite a low home sale volume, the median home sale price edged higher. The first quarter's median home price of $49,350 was 15% higher than first quarter 1989, and at least 10% higher than in 1987-88. It was 17% below the state level, however.

The building construction market appears to have gotten off to a strong start in the early months of 1990. During January-May 1990, Kokomo's City Plan Committee issued 231 building and home improvement permits (valued at $22.35 million), excluding permits for signs/billboards, compared to 233 permits (valued at $10.23 million) in 1989, and 194 permits (valued at $14.76 million) in 1988.

Since the strict enforcement of the sign ordinance that began in March 1990, the number of sign/billboard permits skyrocketed to 155 (valued at $255,000) during the first five months of the year. Interestingly, a total of 168 sign/billboard permits was issued during the 1980s—an average of only 17 permits per year.

Compared with last year's first five months, January-May 1990 registered the following:

Stable residential building market: While at the national level there appears to be some concern about a "credit crunch" or "credit contraction" and a cooling economy, it doesn't seem to be a big problem in the Kokomo area. One-family and multiunit residential building permits totaled 66, the same as in 1989, 32% higher than in 1988, but 28% below the peak reached in 1986. The average dollar value of a single-family building permit reached an all-time high of $103,085, 15% higher than the same period a year ago, and 43% higher than 10 years ago. However, the

average dollar value of a single-family building permit in the city area was $62,857, compared to $108,500 in outlying areas. The difference is mainly due to the large lot size and the upscale nature of the house.

A strong home-improvement market: The home-improvement market posted strong gains—124 permits were issued for additions/alterations, swimming pools, porches, patios, garages, and garage additions, compared to 118 in 1989 and 111 in 1988. Perhaps because of a slow-down in home price appreciation in the last few years and high interest rates, Kokomoans seem to have refocused on home improvement. Permits were issued for seven duplexes (valued at $1.3 million) compared to four in 1989.

Solid gains in commercial and industrial construction: Altogether, 17 commercial-industrial construction permits (valued in excess of $2.7 million) were issued, 42% more than in 1989. This category includes permits issued for new businesses/offices, and additions/alterations to existing offices, stores, restaurants, shopping centers, and factories.

Improvements in the institutional construction sector: The number of institutional construction permits jumped to three (valued at $6 million) from two in 1989 and only one in 1988. This sector includes permits for hospitals, medical offices, public administration structures, churches, and additions/alterations to those existing institutional structures.

A significant gain in nonbuilding construction (public works, utilities): Four permits (valued at $5.4 million) were issued, compared to two each in 1989 and 1988. These included a permit for a $5.4 million water filtering structure for the local water company.

Other major developments in the early months of 1990 include the following:

1. Property tax assessments in Howard County's 16 townships leaped more than 20%, some as high as 61%. This means a sharper tax bite for property owners.

2. As a result of the action taken in March by the Kokomo Common Council, the city's County Option Income Tax jumped 0.1 percent to 0.7 percent, effective January 1990. All job holders will feel its pinch!

3. In June, the United Presidential Life Insurance Co. broke ground on their $11.5 million headquarters. In the same month, the Pennsylvania-based Continental Medical Systems, Inc. unveiled plans for an $8.7 million rehabilitation hospital in Kokomo.

4. Chrysler embarked on a $162 million expansion and modernization plan of its transmission and casting plants—its fourth capital spending in the past eight years. The company is also expected to spend an additional $200 million in the local plants in the coming years. After the last capital investment installment is materialized, Chrysler will have poured nearly $1 billion into its Kokomo operations since 1982.

Outlook

Is the economy headed for the doldrums? Of course not. Despite fears of softness in the nation's economy in general and the auto industry in particular, as well as relatively high interest rates, things are looking good for the Kokomo area.

It appears that Delco has lifted its self-imposed hiring freeze. More engineers and technical personnel are being hired on a regular basis. United Presidential Insurance, the new rehabilitation hospital, and a planned shopping center should add up to 300 jobs in the next several months, thus brightening the job environment. Jobs in retail and service sectors will be on the rise. Local businesses, especially department stores, furniture, furnishing, and appliance stores, grocery stores, and restaurants, will likely see more customer traffic and higher sales volume. Enrollments in the local public schools will edge higher for the second consecutive year. Vacancy rates in the local apartment complexes will likely ease. Cash registers will ring louder during this year's Christmas season.

The housing sector will remain soft. Based on the first five months' data, I expect to see the total number of building permits to reach the low- to mid-600s level, quite in line with the trend in the past three years. In the home market, mortgage rates, still relatively higher, are discouraging prospective home buyers from entering the market. Sales will pick up if the rates taper off. However, given the Fed's desire to keep a tight reign on inflation, the prospects are not bright enough for a sizable drop in interest rates in the coming months. The yearly existing home sale volume will likely be in the low to high 800s.

In a nutshell, Kokomo's economy will keep rolling along through the remaining months of 1990, despite possible shocks and disturbances.

South Bend/Mishawaka-Elkhart/Goshen

John E. Peck

Professor of Economics and Director, Bureau of Business & Economic Research, Indiana University at South Bend

This mid-year assessment of the economic condition of the South Bend/Mishawaka and Elkhart/Goshen communities is based on an analysis of the latest available economic indicators for the area tracked by Indiana University at South Bend's Bureau of Business and Economic Research (BBER). A look at the indicators, particularly those relating to local employment, suggests that both communities continue to experience the relatively slow pace of economic activ-

ity that had become apparent in late 1989 and was the basis for the 1990 area outlook in December.

The accompanying **Table** summarizes the various indicators of local economic activity compiled by the BBER. These figures are seasonally adjusted and, with the exception of the unemployment rates and real estate data, are index numbers expressed as a percentage of 1986 base year values. It is noted that comparative indicators along with percentage changes are given for January and February 1990—the latest months for which the full range of data are available. To highlight longer-term trends, the same figures are also provided for February 1989.

South Bend/Mishawaka

Reflecting the economic slowdown that characterized much of 1989, the table of indicators reveals that conditions in the South Bend/Mishawaka economy provide a mixed picture overall—slowing in some sectors, but obvious strength in others. The nonagricultural employment index reached its historic high, 115.4, in February—up a full 2% from the previous month. However, the manufacturing component was down 1.3%, principally because of a cutback in military truck production at AM General's Mishawaka plant. Nevertheless, 5,900 more people were employed in St. Joseph County in February 1990 than in February 1989. Service industries, construction, and nondurable goods manufacturing accounted for the increase. Although the employment numbers in aggregate are very encouraging, a continuing decline in the help wanted advertising index suggests that a softening of the local economy has been under way since late summer 1989.

Table
Economic Indicators

	South Bend/Mishawaka					Elkhart/Goshen				
				% Change	From				% Change	From
	February 1990	January 1990	February 1989	January 1990	February 1989	February 1990	January 1990	February 1989	January 1990	February 1989
Employment Data										
Establishment Employment[1]										
Nonagricultural	115.4	113.1	110.8	2.0%	4.2%	117.2	118.3	116.0	-0.9%	1.0%
Manufacturing	94.1	95.3	97.1	-1.3%	-3.1%	108.2	110.1	117.4	-1.7%	-7.8%
Nonmanufacturing	121.7	118.6	114.9	2.6%	5.9%	127.7	127.8	114.2	-0.1%	11.8%
Unemployment Rate	5.8	5.5	5.0	n/a	n/a	5.5	5.7	4.3	n/a	n/a
Help Wanted Advertising[2]	88.2	94.6	110.6	-6.8%	-20.3%	77.0	87.5	130.5	-12.0%	-41.0%
Utilities[3]										
Industrial Electricity Sales	98.8	106.7	101.6	-7.4%	-2.8%	111.7	110.6	112.3	1.0%	-0.5%
Commercial Gas Sales	84.0	110.7	92.2	-24.1%	-8.9%	79.0	108.8	89.6	-27.4%	-11.8%
Industrial Gas Sales	68.1	83.5	61.5	-18.4%	10.7%	56.5	67.0	73.1	-15.7%	-22.7%
Retail Car & Truck Sales[1]										
New Passenger Car Sales	64.1	59.9	78.2	7.0%	-18.0%	57.0	66.3	91.8	-14.0%	-37.9%
New Truck Sales	69.3	79.6	84.6	-12.9%	-18.1%	73.5	93.5	121.2	-21.4%	-39.4%
Housing Construction Data[4]										
Estimated Value of Permits	135.1	122.5	104.2	10.3%	29.7%	125.6	229.7	165.2	-45.3%	-24.0%
Number of Permits Issued	109.8	105.5	95.4	4.1%	15.1%	84.6	159.8	123.4	-47.1%	-31.4%
Average Value Per Permit	125.1	104.0	110.1	20.3%	13.6%	140.6	140.9	127.4	-0.2%	10.4%
Residential Real Estate Data										
Number of Active Listings	1,125	1,060	995	6.1%	13.1%	1,477	1,386	1,168	6.6%	26.5%
Closed Sales										
Average Days Listed	88	68	60	29.4%	46.7%	71	70	71	1.4%	0.0%
Average Market Price	$70,526	$67,384	$64,672	4.7%	9.1%	$65,431	$66,663	$63,107	-1.8%	3.7%
% of Sale to List Price	95.0	95.0	95.0	0.0%	0.0%	96.0	96.0	95.0	0.0%	1.1%

All figures except for Unemployment Rate and Residential Real Estate Data are seasonally adjusted index numbers with base year 1986=100.

[1] *St. Joseph and Elkhart Counties.*

[2] *South Bend* Tribune *and Elkhart* Truth.

[3] *Electricity sales are South Bend and Elkhart. Gas sales are St. Joseph and Elkhart Counties.*

[4] *St. Joseph County, excluding cities of South Bend, Mishawaka, Osceola, Walkerton, and New Carlisle. Elkhart County, excluding cities of Elkhart, Goshen, Nappanee, and Millersburg.*

That conclusion is supported by several other indicators covered in the Table. All three energy sales indices decreased in February to levels below the 1986 base year. New car and truck sales continued to be depressed. The car sales index has not reached 100 in more than three years. Residential real estate listings and average days listed both increased. The increase in the number of new housing permits issued was about the only bright spot in the housing industry recorded in February.

Elkhart/Goshen

The softness found in the South Bend/Mishawaka figures was matched—and in some respects exceeded—by that found in the Elkhart/Goshen economy. While the absolute numbers of workers employed increased, all seasonally adjusted measures of employment declined in the month of February, with manufacturing employment dropping a full 1.7% from January. The drop in help wanted advertising on both the monthly and year-to-year comparisons gave additional emphasis to labor market softness.

All other Elkhart/Goshen indicators covered in the table supported the conclusion that local conditions overall were soft. Natural gas sales declined on both the month-to-month and year-to-year bases, as did both retail car and truck sales and the number of new housing permits issued. Residential real estate listings expanded and the average days listed increased marginally.

Outlook

We continue to feel that cyclical factors in the national outlook suggest that after slow conditions predominated through the spring months, a pickup in the pace of employment will occur in both communities in the last half of the year. Uniquely local factors, such as strength in residential and commercial construction sectors, provide a stimulus locally that is not found in the national picture. For the year as a whole, we expect nonagricultural employment to rise by about 2% in both communities.

Lafayette

Gerald J. Lynch

Associate Professor of Economics, Purdue University

Over the last few years the economic news in the Lafayette area has been dominated by the expanding activity at the Subaru-Isuzu plant. This news has masked the fact that two intermediate-sized manufacturers have departed the Lafayette area. In 1989-90 both General Foods and N.V. Phillips shut down their local plants, amounting to a loss of over 900 jobs. The good news is that some of those jobs may be recovered. The makers of SlimFast, a diet drink, have begun negotiations to buy the vacant General Foods plant and start operations there. Talks are far enough along that by the time this is published, the sale should be consummated. If the plant opens, it is expected to provide about 300 jobs, roughly half the number employed when General Foods was in full operation but close to the number of jobs available there when the plant closed.

Although there have been stories that Subaru is not doing well financially on a national level, there appears to have been little effect on the local plant. The plant was scheduled to employ 1,700 by May 1990, and it reached that number at that time. Phase II for the plant, which entails putting on a second shift that will increase employment up to 3,000, is proceeding as planned. Much of the impetus for this added shift comes from two new vehicles—the Rodeo, a small truck from Isuzu, and a new sedan from Subaru. This activity continues to put pressure on housing markets as builders work hard to keep up with the growth, and it has pushed along a planned expansion of the local mall.

The strength of the Lafayette economy continues to be its diversity in manufacturing, services, and education, which shelters it from ups and downs in the economy. Unless there is a major downturn in a number of sectors of the national economy, the local economy should progress nicely for the coming year.

Richmond-Connersville-New Castle

Ashton I. Veramallay

Director, Center for Economic Education, Indiana University East

The midyear economic outlook for Richmond-Connersville-New Castle (RCNC) calls for continued growth at a slower pace for the final two quarters of 1990. No recession is in the offing. But as national economic performance remains sluggish, the local area is going to experience the side effects.

Manufacturing employment, for example, will not register any significant gain. Pockets of soft demand exist for locally manufactured goods of transportation equipment, electronics, electrical machinery, and nonelectrical machinery. RCNC is heavily dependent on the transportation sector, for which it is a ma-

jor supplier of requisite inputs. Consequently, when Detroit catches a cold, RCNC gets pneumonia, because of the area's high sensitivity to this sector's economic vicissitudes. Higher rates of interest compound the problem by curtailing investment in plant and equipment.

Retail employment, on the other hand, will show moderate increases. It will follow normal seasonal patterns, especially in fast food establishments, grocery stores, consumer malls, health care, recreational amenities, and financial enterprises. Retailers, however, will have to devise creative ways such as sales, trips, and other bargains to sustain consumer spending. Such spending accounts for the largest component of RCNC's gross product, and a continuing tight monetary policy by the Fed will weaken consumer demand.

Furthermore, RCNC has to adapt to the structural changes taking place in the national economy. There is a sustained erosion of its manufacturing base. High-paying jobs are being replaced by low-paying jobs in the service sector. This trend, if unchecked, will eventually affect the quality of life in the region. Increasing human capital and diversifying the traditional base in RCNC are vitally important in dealing with the economic challenges during this decade.

Jeffersonville-New Albany (Louisville Area)

Fay Ross Greckel

Professor of Economics, Indiana University Southeast

The Louisville area economy grew fairly strongly in late 1989, and that pace has continued into the current year. Total employment in the seven-county metropolitan area increased by nearly 15,000 jobs in 1989, according to revised government statistics. Although that was about 2,500 fewer jobs than were

Table 1
Louisville Area Establishment Employment[1], 1986-1990

	Total Nonfarm	*Manufacturing*	*Nonmanufacturing*
Entire Metropolitan Area[2]			
Annual Averages			
1986	421,200	86,200	335,100
1987	437,400	87,100	350,300
1988	454,600	88,500	366,100
1989[3]	469,200	88,400	380,800
Quarterly Averages			
1Q 1989	464,370	89,380	374,990
2Q 1989	466,690	88,540	378,150
3Q 1989	468,950	87,260	381,690
4Q 1989	476,760	88,400	388,360
1Q 1990	483,240	87,900	395,340
Clark, Floyd, and Harrison Counties (Indiana) Only			
Annual Averages			
1986	55,600	13,200	45,900
1987	59,300	13,400	46,300
1988	61,100	13,800	47,300
1989[3]	61,400	13,500	47,900
Quarterly Averages[3]			
1Q 1989	60,990	13,640	47,350
2Q 1989	61,130	13,370	47,760
3Q 1989	61,230	13,510	47,720
4Q 1989	62,150	13,520	48,630
1Q 1990	62,570	13,840	48,730

[1]Employment in establishments located in the area specified; quarterly data are seasonally adjusted by the author.
[2]Consists of Clark, Floyd and Harrison counties in Indiana, and Jefferson, Oldham, Bullitt, and Shelby counties in Kentucky.
[3]Subject to revision by data sources in 1991.

Sources: Indiana Department of Employment and Training Services, Kentucky Cabinet for Human Resources.

added the previous year, it was still a quite respectable rate of growth, considering how far into the expansion phase the national economy is. The timing of the job growth is particularly encouraging, as we look ahead. After adjusting the currently available statistics for normal seasonal fluctuations, it appears that about half of the new jobs were added in fourth quarter 1989. Strong growth occurred again in first quarter 1990.

Unfortunately, manufacturing employment, which had been growing very slowly during the preceding three years, remained virtually unchanged in 1989 and declined in early 1990—at least in the Kentucky portion of the metropolitan area (see **Table 1**). The greatest employment growth occurred in health services, which added about 3,500 jobs in the metropolitan area over the past 12 months. Other sectors with employment gains of 1,000 jobs or more included business services, food stores, eating and drinking establishments, transportation services, construction, and state and local government.

Although Indiana employment statistics originally showed a decline in the number of jobs in the Clark/Floyd/Harrison County area during 1989, official employment estimates for those counties were recently revised upward. Table 1 shows the revised figures, with quarterly data adjusted to eliminate normal seasonal fluctuations. As in the rest of the metropolitan area, southern Indiana employment grew very slowly during the first three quarters of 1989, then posted strong gains in fourth quarter 1989 and first quarter 1990. As a result, nearly 1,600 more workers were employed in the three Indiana counties in first quarter 1990 than in first quarter 1989. Employment increased in nearly all sectors, with the largest gains occurring in wholesale and retail trade and in construction. The only Indiana sector showing substantial job losses was educational services.

The increase in construction employment was reflected somewhat imperfectly in residential building statistics. As **Table 2** shows, Jefferson County, Kentucky issued fewer building permits in 1989 than in 1988, but permit approvals accelerated sharply in the first four months of 1990. The mild winter obviously played some part in that development, so one should be cautious about projecting such large gains forward for the remainder of the year.

Floyd County issued permits for 35% more dwelling units in 1989 than in 1988, with apartment complexes accounting for much of the increase. The first four months of 1990 were only slightly behind 1989's record level. Although permits declined in Clark County, the number issued in 1989 was still the second highest of the decade, and 1990 started off at about the average issuance rate. (The partial data available for Harrison County suggest a slight decline in activity there.)

The number of multiple-listing real estate sales in the Louisville area declined very slightly in 1989, but the dollar volume of those sales reached a record $638 million—a 10% increase over 1988. In first quarter 1990 southern Indiana realtors enjoyed a 7% increase in the number of properties sold and a 10% increase in total dollar sales; Louisville dollar sales volume was up 9%. Again, the mild winter may have contributed to greater activity than normally occurs during those months.

Nonresidential construction appears to have declined somewhat last year, as some major projects neared completion, but seems to be picking up again in 1990, as more of the previously announced commercial building projects come on line. The Louisville

Table 2
Residential Building Permits, 1987-1990[1] (number of dwelling units)

	Jefferson Co. Kentucky	*Clark Co. Indiana*	*Floyd Co. Indiana*	*Harrison Co.[2] Indiana*	*4-County Total*
Totals for Year					
1987	3,169	224	397	157	3,947
1988	2,686	341	387	148	3,562
1989	2,304	321	548	140	3,313
Totals for first four months					
1987	1,816	72	127	50	2,065
1988	601	64	141	46	852
1989	645	93	212	41	991
1990	1,048	55	209	38	1,361

[1]Number of residential units for which building permits were issued, including single-family dwellings, apartment units, and condominium units.
[2]Excluding Corydon, for which data were not available.

Source: Kentuckiana Regional Planning and Development Agency.

Chamber of Commerce's tabulation of major capital investment projects announced during 1989 produced the following totals: 169 industrial firms planned to spend about $237 million on new or expanded facilities, and 484 commercial enterprises planned to spend about $294 million on such projects. When completed, these projects are expected to produce more than 6,000 new jobs. Although these are impressive totals, they are substantially below the spending levels and job projections announced for the prior two years.

The automobile market continues to be weak, although there is some possibility of improvement this year. Car dealers in Clark, Floyd, and Jefferson counties sold fewer new cars and light trucks in 1989 than in 1988. However, during first quarter 1990, dealers in Floyd and Clark counties sold about the same number of cars as in first quarter 1989, and dealers in Jefferson County had a 2% increase in sales. It is too early to tell whether that was a temporary improvement attributable to dealer incentives and the milder weather, or an indicator of better times ahead. The good news locally is that national demand has been very strong for Ford's Explorer pickup, which is manufactured in Louisville.

Unfortunately there continue to be signs that poverty is increasing rather than diminishing. Dare To Care, the emergency food relief agency, provided food supplies for 95,000 individuals in 1989, a 14% increase over the nearly 84,000 serviced in 1988. (These totals overstate the number of people needing emergency food assistance, since agency rules allow individuals to receive supplies up to four times in a year, if circumstances warrant it. Starting next year, agency data collection should permit us to determine whether higher totals are due to more people receiving assistance or to more aid being given per person.)

For the local economy as a whole, the revised employment statistics and other indicators suggest a growth rate for 1990 comparable to that of 1989. The demand for housing continues to look fairly robust. Commercial construction will also be strong, with important projects going forward on both sides of the Ohio River. In fact, the banks of the river will be the site of some of this activity, as waterfront development projects move ahead, particularly in Clark County. Barring a precipitate decline in the national economy, which does not appear to be in the cards, the Louisville metropolitan area should experience moderate growth for the remainder of 1990.

Indiana Business Review

Indiana Business Research Center
Graduate School of Business
Indiana University
Bloomington, IN 47405

July 1990

Nonprofit Organization
U.S. Postage
PAID
Bloomington, Indiana
Permit No. 2

00899 8809
Cheryl Waldman
Congressional Info Serv.
4520 East West Highway
Bethesda MD 20814